Miele
PROFESSIONAL

Instrument reprocessing in surgeries, outpatient clinics and hospitals

Washing, disinfection, documentation, guarantees

A systematic approach to the safe and efficient reprocessing of instruments

Miele offers a comprehensive system for safe and efficient processes in surgeries, outpatient clinics and hospitals. System4Med covers all aspects of modern instrument reprocessing and is the product of decades of experience.

Washer-disinfectors for safe and economical cleaning and disinfection. New, intelligent software solutions ensure gap-free process documentation. And blanket coverage by Miele Service guarantees a rapid service response in top Miele quality.

Miele's System4Med brings everything together – components, machines, accessories and documentation – perfectly matched and from one single source.

Leading instrument manufacturers recommend Miele reprocessing

B|BRAUN
SHARING EXPERTISE

systems:

Miele ORTHOVARIO approved for the reprocessing of

Geuder®
Precision made in Germany

current-series Aesculap motor systems.

STORZ
KARL STORZ—ENDOSKOPE

Recommendation to reprocess ophthalmological instruments with the Miele system.

RICHARD WOLF
spirit of excellence

Miele OXIVARIO PLUS process approved to prevent the iatrogenic spread of vCJD

OLYMPUS

Value-preserving reprocessing of instruments with the VARIO TD and OXIVARIO processes

Safe reprocessing of flexible endoscopes in models ETD3 and mini ETD2 which are designed and manufactured by Miele.

Manual reprocessing entails a multitude of risks

The manual cleaning and disinfection of medical instruments requires considerable time and effort. It also represents a source of errors with respect to maintaining exposure times, dispenser concentrations and the renewal of disinfectant solutions. Many instruments – such as long lumened items – can scarcely be reprocessed by hand. On the economical side, high consumption of water as well as detergents and disinfectants result in excessive costs.

Benefits of automatic reprocessing compared with manual cleaning:

- More thorough cleaning as pre-condition for effective sterilisation
- Simple cleaning of lumens on minimally invasive instruments
- Gentle treatment of materials and preservation of the value of expensive instruments
- Lower cycle costs through the reduced use of water, electricity and process chemicals
- Safe results guaranteed by automatically monitoring programme parameters
- Automatic instrument reprocessing preferred method according to Robert Koch Institute
- Safest approach to instrument reprocessing, offering maximum compliance with regulations

Illustrated: – PG 8535 washer-disinfector – E 501 AN carriage – E 502 AN module
– on top of machine: E 505 AN module

A systematic approach to the safe and efficient reprocessing of instruments

G7862 Utensil Washer

Made in Germany
Uncompromising quality and great power of innovation - Made in Germany - are two of the big benefits Miele has to offer. Miele washer-disinfectors excel not only in terms of the way they seamlessly integrate into well-conceived systems but also - and particularly - through their capacity and their top-grade build quality and workmanship.

G 7862 washer-disinfector
- Undercounter/freestanding unit
- Stainless-steel casing
- Width 60 cm
  H 820* (850), W 600, D 600 mm
- 2 rack levels
- Water circulation capacity: 400 l/min
- 8 programmes
- 3-phase supply for short programme cycles
- 2 door dispensers for process chemicals (alkaline detergent/neutralising agent)

Hygiene, safety and efficiency
- Automatic instrument reprocessing and utensils
- Thermal disinfection processes
- Thorough cleaning and safe disinfection in a closed, single-cabinet system
- Certified medical product, MDD compliant
- Reproducible results, validatable processes
- Process documentation interface (depending on model)
- Comprehensive safety features according to EN ISO 15883 / AS4187 and AS2945
- Connection option for liquid dispensing systems

Exclusive to Miele

Exclusive to Miele
- Tried-and-tested Miele quality, tested to last 15,000 programme cycles
- Large-capacity cabinet with two rack levels
- Powerful circulation pumps with a capacity of up to 400 l/min for superior cleaning performance
- Large selection of standard and special inserts for reprocessing the full range of instruments and utensils

* Undercounter unit

Technical data Pages 50/51

Miele washer-disinfectors: Quality, inside and out

High-quality design
In designing these machines, Miele used choice, durable and robust materials. This results in rugged and particularly maintenance-free machines able to cope with the rough and tumble of everyday working life.
- Double-skinned design, insulated door for excellent soundproofing
- Chamber and pipework made from high-grade stainless steel
- Fibre-reinforced hoses

Cleaning technology
- Hygienic freshwater system with fresh water intake in each programme stage
- 2 spray arms (third spray arm on upper basket) for thorough cleaning of instrument surfaces
- Perfect arrangement of nozzles and regulatable spray arm speed
- Injector system for thorough cleaning of lumens
- Direct docking of mobile units and baskets to water circuit

Standard technical specifications
- Profi Monobloc water softener, reactivation internalised into programme cycle, low salt consumption
- Powerful circulation pump, max. throughput 400 l/min
- 4-fold filtration system comprising surface filter, strainer, coarse filter and micro-fine filter
- Efficient steam condenser as heat-exchanger to minimise steam discharge
- Flowmeter to monitor water intake quantities
- Door dispenser for powder cleaning agent
- Connection options for liquid dispensing systems
- Integrated dispenser flow control

Design
- Freestanding or undercounter unit

Interfaces
- Serial interface for process documentation
- Optical interface for service

Safety features
- Electric door lock
- Programme recontinuation in event of power outage
- Optical and acoustic signal at end of programme
- 2 sensors for redundant monitoring and control of process temperature
- Port for simple positioning of sensors in the wash cabinet for process validation
- Safety features according to EN ISO 15883 / AS4187 and AS2945

Programme controls

Illustrated: G 7862

Fully electronic controls, high-level process security
Programmes and functions on Miele's G 7862 washer-disinfectors are controlled and monitored by Multi NOVOTRONIC controls. All Miele washer-disinfectors feature a serial interface. This offers the opportunity to document the entire process using a printer.

High-level user convenience
All symbols on the fascia panel are self-explanatory. The machine status is indicated at any given time via control lamps. A 3-digit 7-segment indicator in the display with its own toggle switch can be used to display the remaining programme duration or the current washing/ disinfection temperature. Status and control indicators monitor the process and inform of faults and the need for servicing.

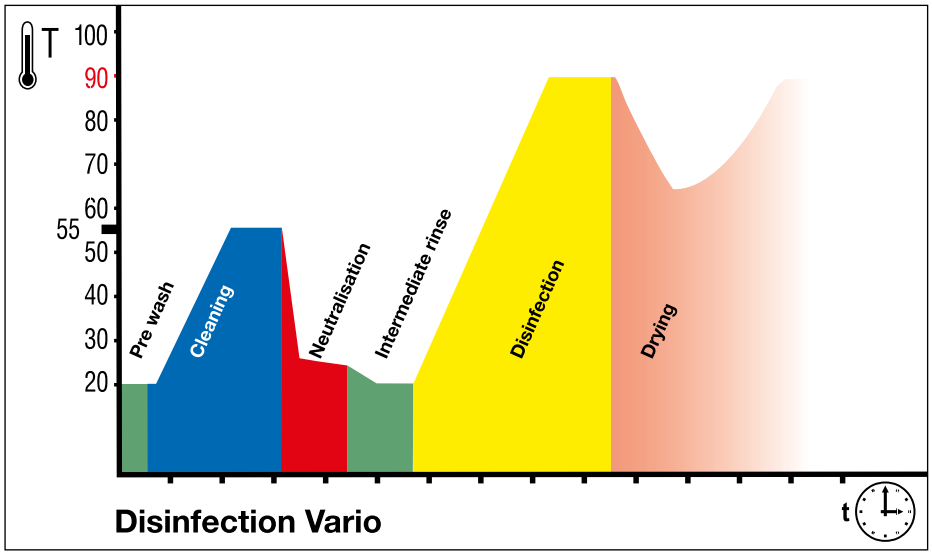
Features and functions
G 7862
- Electronic controls
- Multi NOVOTRONIC
- 7 standard washing and disinfection programmes
- 1 vacant programme slot for customised programme
- Programme selection via rotary selector
- Programme sequence indicator and fault and service indicators
- Temperature and programme duration indicator

Programmes, cycle times, consumption

G7862	Washing / disinfection			
Ward Utensils / Surgical Equipment	Duration	CW	WW	Energy
	(mins)	(l)	(l)	(kWh)
vario TD AN	47	32.5	40	1.8
vario TD	35	21.5	23.5	1.6
SCAN III	30	21	29	1.4
SCAN II	25	11	29	1.2
SCAN I	20	11	20	1.2
Universal	19	10	29	0.5
free (A)				

Heating: 9.0kW (3N AC 400V 9.7kW),
Connection to cold water (15°C) and hot water 65°C)
CW = Cold water, WW = Hot water

Single phase machine - programme duration may vary



VarioTD programme
In the Vario TD programme, pre-cleaning commences at low temperatures to prevent the denaturation of blood residues. After an intensive main wash phase, thermal disinfection then takes place at temperatures in excess of 90°C which are maintained for 5 minutes. In order to protect surgical instruments, the final rinse is ideally performed with demineralised water without any surfactant added. This programme is suitable for routine reprocessing according to DIN EN ISO 15883 for all thermally stable instruments. This approach is particularly gentle on materials and is recommended for the reprocessing of transmission instruments.

Washer-disinfectors
PG 8535 and PG 8536

PG 85
Perfection Guaranteed

Illustration shows PG 8535 with lid

Compact high-tech washer-disinfector with freely programmable controls

PG 8535 washer-disinfector
- Undercounter/freestanding unit
- Stainless-steel casing
- Width 90 cm
- H 820* (850), W 900, D 700 mm
- Freely programmable Profitronic* controls with 17 programmes and 30 vacant programme slots
- Network interface for process documentation
- 2 rack levels
- 400 l/min circulation pump capacity
- PerfectSpeed spray arm monitoring
- 3-phase supply for short programme cycles
- 2 integrated dispenser pumps for liquid detergent and neutralising agent
- Drawer with 2 supply canisters, 5 l each
- Integrated hot-air drying unit
- Option: OXIVARIO package

Capacity per cycle:
- 2 AN sets or 4 DIN mesh trays or 1–2 MIS sets or 48 GYN specula

High-performance high-tech washer-disinfector with freely programmable controls

PG 8536 washer-disinfector
- Freestanding unit
- Stainless-steel casing
- Width 90 cm
- H 1175, W 900, D 700 mm
- Freely programmable Profitronic+ controls with 18 programmes and 30 vacant programme slots
- Network interface for process documentation
- 2 rack levels
- High-performance units with 600 l/min circulation capacity
- PerfectSpeed spray arm monitoring
- 3-phase supply for short programme cycles
- 2 integrated, maintenance-free bellows-type dispenser pumps for liquid detergent and neutralising agent
- Drawer with 4 x 5 l supply containers, incl. PerfectFlow Sensor ultrasound flow control
- Integrated hot-air drying unit
- Options:
  PerfectFlow Sensor ultrasound flow control ORTHOVARIO package

Capacity per cycle:
- 3 AN sets or 7 DIN mesh trays or 2 MIS sets or 48 GYN specula

* Undercounter unit

Technical data Pages 52/53

- **Optimum user convenience**
- **Reliable hygiene**
- **Perfect control**

Exclusive to Miele

- Freely programmable controls
- Chemical-resistant glass surfaces
- Innovative programme cycles

PerfectTouch Control
Simple to operate, easy to clean: Washer-disinfectors from the PG 85 series feature a touch-sensitive display. This easy-to-use PerfectTouch display guarantees unique user convenience combined with superb hygiene. A fully flush, chemical-proof display screen makes for simple and effective wipe disinfection.

The controls are outlined on the glass surface and slight pressure is enough to activate functions and launch programmes, even when wearing protective gloves. The man-machine interface involves the use of only a very limited number of controls; all steps in the process appear in the display in the user's own language. Display texts, for example for A0 values, actual temperatures, conductivity, countdown times and all other protocol data can be defined individually. Using the integrated A0 value controls, parameters can be set to comply with national standards or to suit a hospital's own regime.

Features and functions
- Freely programmable controls PROFITRONIC+
- 64 programme slots
- 18 standard programmes, 15 service programmes
- 30 vacant programme slots
- User interface with local-language display
- Configurable display and protocols
- 4 operating levels ranging from simple operative to power user
- Countdown indicator and delay start function
- Wide range of programming options, e.g. for client-specific programmes assigned to vacant programme slots
- Automatic mobile unit recognition for automatic programme selection

- **Continuous conductivity monitoring**
- **Residue-free rinse quality**
- **Safe reprocessing**

Exclusive to Miele

- Maintenance-free conductivity monitoring

PerfectPure Sensor
Residue in the final rinse water can have a negative impact on reprocessing performance, sometimes even with catastrophic implications. Alkaline residue in ophthalmology, for instance, can in extreme cases result in serious complications when instruments are reused. Excessive residue can also result in corrosion and deposits on instruments. Hence, there is great call for a system able to warn users of the presence of undesirable substances in the wash liquor in reprocessing systems. On request, the PG 8536 can be fitted with Miele's new, patented PerfectPure conductivity monitor. Conductivity monitoring reliably detects the presence of minerals in the rinse water, such as the dissolved salts introduced with alkaline or acidic process chemicals, limiting them to a threshold level defined by the user.

Residue is determined as a function of conductivity. Measuring and monitoring is achieved using a contact-free and hence maintenance-free system which is able to monitor conductivity conditions with exceptionally low tolerance levels in ranges from 5 – 40 µS/cm.
Depending on machine settings, conductivity readings can even be used to control the programme cycle. This allows the number of necessary rinse cycles to be determined automatically if conductivity is outside the predetermined range: Recording conductivity over the entire process helps ensure the reproducibility of validated processes. Monitoring results can be shown in the display and documented accordingly.

Conductivity monitoring using Miele's PerfectPure sensor technology reliably ensures that the maximum residue concentrations on surgical instruments stated by chemistry suppliers are not exceeded. This, in turn, ensures that residuals on instruments do not pose any risk to patients in the operating theatre. Alongside toxicological safety considerations, the reduced depreciation of instruments is also a key benefit to users. Recording conductivity over the entire process offers increased safety in ensuring the precise reproducibility of validated processes.

PG85 PerfectFlowSensor

PG85 PerfectSpeedSensor

- **Continuous monitoring of dispensed volumes**
- **Precise results, user-defined tolerances**
- **Perfect dispensing control**

Exclusive to Miele

- Extremely precise
- Precision independent of temperature and viscosity of dispensed products

PerfectFlow
A decisive factor contributing to good reprocessing results is the precise volumetric control of dispensed chemicals. The currently valid DIN EN ISO 15883 standard prescribes the redundant monitoring of dispensing. Miele's new PerfectFlow sensor using ultrasound technology, a standard feature on the PG 8536, offers considerably greater safety margins than conventional systems. The PerfectFlow sensor guarantees a hitherto unparallelled degree of precision in controlling and monitoring volumetric flow, independent of viscosity and ambient temperatures. The monitoring system is fully independent of the dispensing system and can be calibrated. Dispensing tolerances can be set to comply with legal standards or defined individually; chemicals are dispensed efficiently and reliably, irrespective of the type of product or ambient conditions (continuous operation, fluctuating climatic conditions). Any deviation from the target quantities are safely detected and the reproducibility of validated processes guaranteed. An error message is issued or the programme is aborted if values are outside the tolerance range.

- **Precisely monitored reprocessing**
- **Improved reproducibility of validated processes**
- **Perfect washing and disinfection results**

Exclusive to Miele

- Spray arm monitoring on **all** levels
- Spray arm speed monitoring

PerfectSpeed Sensor
To guarantee perfect and safe cleaning and disinfection results, the rotational speed of the spray arms must be within defined limits. With the new PerfectSpeed sensor, the precise speed of each individual spray arm is carefully monitored and documented – whether in the cabinet or on board baskets and mobile units. The spray arm monitoring feature uses a sensor strip located outside the cabinet to detect the passage of spray arms and to ensure that speeds are within the specified range. Information shown in the display indicates whether the values are correct or whether the user must intervene on account, for example, of excessive foam slowing spray arm motion down.
In the event of a deviation from target values, either an error message is issued or the programme is interrupted immediately to allow the user to deal with the cause of the fault, depending on system parameters.
Deviations can also be recorded by automatic process documentation. Spray arm sensing, a standard feature on models PG 8535 and PG 8536, offers effective protection against spray arm blockages by items in the load and also provides information on pressure conditions in the machine and in mobile units and baskets. And, most importantly, spin speeds provide a valuable indication as to the reproducibility of validated processes, increasing safety margins in machine-based instrument reprocessing systems by a considerable degree.

PG85 PerfectHepaDrying

PG85 PerfectDoc

- **Optimum drying results**
- **High level of air purity in chamber**
- **High standards of hygiene**

PerfectHEPA Drying
New hygiene standards and the use of innovative Miele technology also applies to the drying phase. The new Class H 13 high-temperature HEPA filter, located directly upstream from the cabinet, prevents the admission of unwanted air-borne particles from room air. This ensures exceedingly high levels of air purity in the cabinet. Thanks to streamlined air ducting, Perfect HEPA Drying also ensures excellent drying performance.

- **Continuous process documentation**
- **Integration into surgery or hospital network**
- **Wide range of parameters documented**
- **Perfect process traceability**

Exclusive to Miele

- Wide range of parameters including temperature, A0 value, dispenser volumes, conductivity and spray arm rotation

PerfectDoc
The PG 8535/36 is fitted with a network interface for process documentation as a standard feature. The PerfectDoc module allows the machine to interface with process documentation software. This facilitates the recording of many process parameters, including temperatures, as well as the documentation of entire process protocols including A0 values, dispensed quantities, spray arms speeds and conductivity readings. Alternatively, documentation can also be achieved using a printer connected to one of the machine's serial interfaces. Further information on process documentation is provided on Pages 56-59.

Innovative programme cycles

1994

2004

2005

2011

Miele innovations for particularly critical cases. Milestones in the optimisation of cleaning results:

1994 innovation
VarioTD
The Vario TD method can now be seen as the standard programme for routine instrument cleaning and disinfection, achieving good removal of protein-based contamination (blood, secretion) from instruments which do not pose a particular challenge. Thermal disinfection takes place at a temperature of at least 90°C for 5 minutes. To protect instruments, the final rinse is ideally performed with demineralised water without surfactant.
- Intensive cleaning below protein denaturation temperature
- Disinfection according to EN ISO 15883
- Exceptional material compatibility

2004 innovation
OXIVARIO
Special programme on PG 8535 and PG 8536 washer-disinfectors for the critical instruments used in trauma surgery as well as high-frequency cauterising instruments requiring higher standards of cleaning.
- Excellent cleaning and removal of organic soil
- Time-saving as there is no need for pre- and post-treatment

OXIVARIO PLUS
Special programme on PG 8535 and PG 8536 washer-disinfectors to prevent the iatrogenic spread of vCJD according to guidelines published by the task force set up by Germany's Robert Koch Institute.
- Excellent cleaning and removal of organic soil
- Time-saving as there is no need for pre- and post-treatment

2005 innovation
ORTHOVARIO
Special programme on PG 8536 washer-disinfectors for orthopaedic instruments including motor systems and other medical products made from aluminium.
- Excellent cleaning performance
- Good material compatibility even on instruments sensitive to alkalinity

2011 innovation
ROBOTVARIO *
The complexity of the robotic-assisted instruments used in minimally invasive surgery poses extreme challenges with respect to the safety and reliability of reprocessing. The new ROBOTVARIO reprocessing system from Miele Professional consists of a specially designed load carrier, a new reprocessing programme and matching process chemicals. The outcome is an innovative approach to the safe and cost-efficient cleaning and disinfection of robotic-assisted surgical instruments.
- Excellent cleaning performance
- Economical and gentle reprocessing of expensive instruments

* Programme selection may vary from country to country

Programmes, cycle times, consumption

PG 8536	Cleaning					Drying	
	Duration	CW	HW	AD	Energy	Duration	Energy
	[mins.]	[l]	[l]	[l]	[kWh]	[mins.]	[kWh]
DES-VAR-TD	54	36.3	24.2	16	3.7	34.3	0.6
DES-VAR-TD AN	57	43	39.5	22	3.7	49.5	0.8
VAR-TD-NR	44	24.3	23.3	16	3.3	34.3	0.5
OPHTHALMOLOGY	48	26.3	36.7	32	2.9	34.3	0.5
ORTHOVARIO	74	34.7	31.3	35	5	34.3	0.4
OXIVARIO	64	38.3	40.7	32	4.4	34.3	0.5
OXIVARIO PLUS	73	27	35	49	4.5	43.3	0.5
SHOE-TD-75/2	27	27.7	35.8	–	1.5	39.3	0.4
SPECIAL 93/10	48	22	25.5	15.5	3.9	39.3	0.7
CHEM-DESIN	38	26.3	51.7	–	1.8	40.5	0.4
LAB-STANDARD	33	8.5	38.5	18	2.6	34.3	0.6
LAB-UNIVERSAL	35	8.5	55	21	2.3	34.3	0.6
LAB-INTENSIVE	43	8.5	40	48	2.7	34.3	0.6
LAB-PIPETTES	46	11.5	74.5	44	2.5	34.3	0.3
PLASTICS	38	62.5	–	20	2.5	44.6	0.4
ORGANICA	41	1	64	21	2.8	34.3	0.6
ANORGANICA	43	4	49	48	2.4	34.3	0.6
LAB-OIL	47	1	80.5	21	2.5	34.3	0.3

Heating: 9 kW (3N AC 400 V, 10.2 kW)

Connection to cold water (15°C), hot water (65°C) and demineralised water (15°C)

Note:

With the exception of OrthoVario, the PG 8535 has the same programmes as the PG 8536.

Cycle times and consumption figures may vary slightly.

OPHTHALMOLOGY programme

Miele PG 8535 and PG 8536 washer-disinfectors now feature a programme which is specifically designed to cater for the instruments used in ophthalmological surgery. By using fully demineralised water in the final rinse, chemical residue is reduced to a minimum. This is particularly important as even the slightest traces of process chemicals can result in severe complications, e.g. caustic burns to the eye. In order to precisely monitor chemical residue in each stage of the programme, the use of a PG 8536 with an integrated conductivity meter is highly recommended (cf. Page 12 for further details on conductivity).

Leading instrument manufacturers recommend Miele reprocessing systems:

B BRAUN SHARING EXPERTISE

Miele ORTHOVARIO approved for the reprocessing of current-series Aesculap motor systems.

Geuder® Precision made in Germany

Recommendation to reprocess ophthalmological instruments with the Miele system.

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Miele OXIVARIO PLUS process approved to prevent the iatrogenic spread of vCJD

RICHARD WOLF spirit of excellence

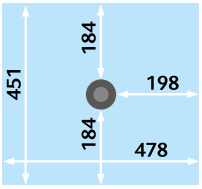
Value-preserving reprocessing of instruments with the VARIO TD and OXIVARIO processes

OLYMPUS

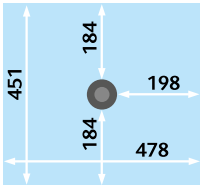
Safe reprocessing of flexible endoscopes in models ETD3 and mini ETD2 which are designed and manufactured by Miele.

Upper and lower baskets for washer-disinfectors G 7862, PG 8535, PG 8536

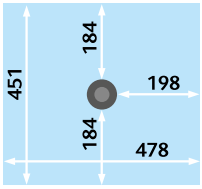
O 188/2 upper basket/open front
- Open front
- For various inserts
- Vertical clearance 165 +/- 20 mm
- Built-in spray arm with magnetic tip
- Note: Magnet for spray arm sensors on PG8535, PG8536
- H 215, W 531, D 475 mm



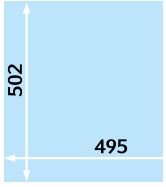
O 190/2 upper basket/open front
- Open front
- For various inserts
- Vertical clearance 215 +/- 20 mm
- Built-in spray arm with magnetic tip
- Note: Magnet for spray arm sensors on PG8535, PG8536
- H 265, W 531, D 475 mm



O 191/1 upper basket/open front
- Open front
- For mesh tray (E 142)
- Vertical clearance 115 +/-20 mm
- Loading width 475 mm
- Loading depth 450 mm
- Built-in spray arm above basket
- H 180 +/–20 mm
  W 531, D 475 mm

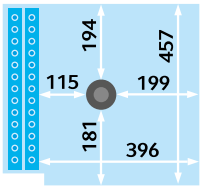


U 874/1 lower basket/open front
- For various inserts
- Vertical clearances in combination with upper basket:
  O 176 approx. 110 mm
  O 177/1 approx. 220 mm – 20/– 40 mm
  O 183 approx. 185 mm +/–20 mm
  O 188/1 approx. 270 mm +/–20 mm
  O 190/1 approx. 220 mm +/– 20 mm
  O 191/1 approx. 295 mm
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 50, W 534, D 515 mm



Upper baskets/injector units for washer-disinfectors G 7862, PG 8535, PG 8536

O 177/1 upper basket/injector unit
- Built-in spray arm
- Right-hand side free for inserts
- Left-hand side with 26 silicone adapters: 26 nozzles Ø 4 mm, L 30 mm, 7 funnels supplied, with height-adjustable rack
- Vertical clearance 230/205 mm
- Height adjustment range + 20/+ 40 mm
- H 263, W 498, D 455 mm



O 176 upper basket/injector unit TA
- For instruments from minimally invasive surgery, arthroscopy, urology
- Left-hand side free for inserts Vertical clearance 360 mm, 10 injector nozzles
- Right-hand side for lumened instruments max. length 500 mm 14 injector nozzles/funnels
- Connection for hot-air drying unit

Powder dispensing not possible

O 183 upper basket/injector unit
- For instruments from minimally invasive surgery, arthroscopy, urology
- Left side free for inserts Vertical clearance 285 +/–20 mm, 10 injector nozzles
- Right side for lumened instruments max. length 370 +/– 30 mm, 14 injector nozzles/funnels

Powder dispensing not possible

O 176/1 upper basket/injector unit with drying connector
- For instruments from minimally invasive surgery, arthroscopy, urology
- 10 receptacles
- Built-in spray arm with magnetic tip
- Note: Magnet for spray arm sensors on PG 8535, PG 8536
- Left-hand side free for inserts
- Right-hand side for lumened instruments, max. length 500 mm
- Vertical clearance 360 mm
- Connection for hot-air drying unit

O 176/1 supplied as standard with:
2 x spray nozzles Ø 2.5 mm
4 x spray nozzles Ø 4 mm
4 x funnels
2 x E 442 irrigation sleeves
2 x E 448 silicone hoses
1 x E 452 injector nozzle
1 x E 453 injector nozzle
1 x E 454 injector nozzle

Surgical instruments

E 327/1 mobile unit
For use in PG 8535, PG 8536
- For 4 DIN mesh trays on 2 levels
- Built-in spray arm
- Vertical clearances from bottom:
  Level 1: H 112, W 520, D 510 mm
  Level 2: H 105, W 512, D 480 mm
- With holder for ML/2 magnetic strip for automatic mobile unit recognition

Exclusive to Miele

- Load capacity
  40 kg of instruments

E 439/3 mobile unit
For use in PG 8536
- For 7 mesh trays on 3 or 4 levels
- 2 built-in spray arms
- Level 2 from bottom removable
- Vertical clearances from bottom:
  Level 1: H 70, W 488, D 499 mm
  (without Level 2: H 155 mm)
  Level 2: H 70, W 509, D 510 mm
  Level 3: H 90, W 520, D 470 mm
  Level 4: H 90, W 490, D 460 mm
- With holder for ML/2 magnetic strip for automatic mobile unit recognition

Exclusive to Miele

- Load capacity
  70 kg of instruments

Anaesthetic equipments/modular system

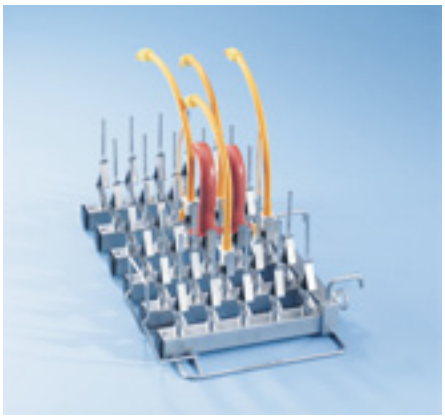
Modular basket concept
Miele is now offering a new and modular mobile unit design for the reprocessing of anaesthetic instruments and accessories. This concept comprises a basic load carrier and modules for anaesthetic tubing and intubation material. Anaesthetic equipment and accessories can be reprocessed flexibly to meet the needs of individual surgeries. A further E 427 for 6 laryngoscopes further complement the system.

E 501 carriage
For use in PG 8535
- For modules E 502, E 505
- For approx. 2 AN sets in combination with E 502
- 6 injector nozzles for breathing bags, breathing masks
- 10 injector nozzles for intubation material
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

E 501 scope of delivery
- 6 x E 466 injector nozzles for breathing bags, 8 x 333 mm
- 10 x E 496 injector nozzles for intubation material, Ø 4 x 120 mm
- 1 x E 431 injector nozzle for breathing bag
- 1 x E 507 mesh basket for sundry small items
- 8 x irrigation tubes for double-lumened laryngeal masks, Ø 4 x 70 mm

E 502 module for breathing tubes
For use in E 501
- Module for 6 breathing tubes
- 6 nozzles with spring supports
- Support for breathing tubes with max. length of 1.5 m
- Spiral support

Scope of delivery:
- 2 x E 433 holders for 3 silicone breathing tubes
- 1 x E 434 holder for 3 paediatric breathing tubes
- 1 x E 432 holder for 3 corrugated breathing tubes



E 505 module for intubation material
For use in E 501
- Module for intubation material
- 30 injector nozzles to connect intubation material, e.g. laryngeal masks, Guedel tubes or endotracheal tubes

Scope of delivery:
- 30 x E 496 injector nozzles for intubation material, Ø 4 x 120 mm

Anaesthetic equipment

Sample combination
E 501 carriage with E 502 hose module

Sample combination
Carriage with E 505 module for intubation material

E 461/2 mobile injector unit TA
For use in PG 8535, PG 8536
- For 12 breathing tubes up to 1.5 m long, fitted on a spiral rack
- 1 x E 432 holder, for 4 breathing tubes
- 3 x E 433 holders, for 4 silicone tubes, included
- 1 x E 434 holder for 4 paediatric breathing tubes, included
- 1 x E 430/1 mesh tray
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

Model	Anaesthetics/modular system			Mobile units for anaesthetic equipment	
PG 8535	E 501	E 502	E 505	E 435/3	E 461/2
PG 8536	–	–	–	E 436/3	E 461/2

E 435/3 mobile injector unit TA
For use in PG 8535
- For approx. 2 AN sets
- 6 nozzles with spring supports for breathing tubes with max. length of 1.5 m
- Spiral support
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 507, W 535, D 515 mm

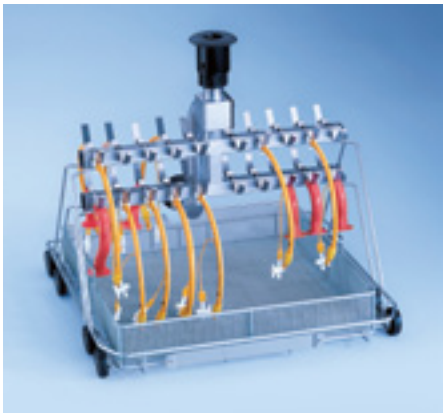
E 436/3 mobile injector unit TA
For use in PG 8536
- For approx. 3 AN sets
- 8 nozzles with spring supports for breathing tubes with max. length of 1.5 m
- Spiral support
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 507, W 535, D 515 mm

E 435/3 and E 436/3 scope of delivery:
- 1 x E 430 mesh tray
- 1 x E 432 holder for 3-4 corrugated breathing tubes
- 2 x E 433 holders for 3-4 silicone breathing tubes1)
- 1 x E 434 holder for 3-4 paediatric breathing tubes
- 6 x E 466 injector nozzles for breathing bags, 8 x 333 mm
- 1 x E 431 injector nozzle for breathing bags, Ø 8 x 193 mm
- 10 x E 496 injector nozzles, 4 x 120 mm

[1]) Pre-fitted

Anaesthetic equipment

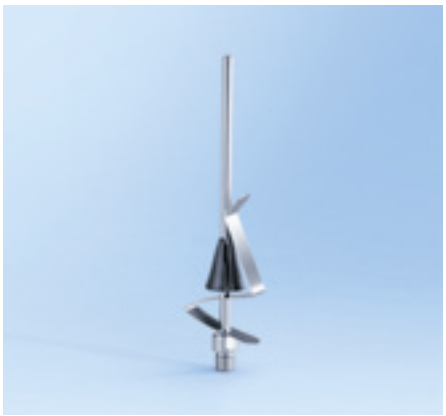
E 381 mobile injector unit with drying connection
For use in PG 8535, PG 8536
- For intubation material
- 20 nozzles, 4.0 x 30 mm with spring supports
- 5 nozzles, 2.5 x 30 mm (supplied)
- 6 x E 466 injector nozzles for breathing bags, 8.0 x 333 mm
- 2 x E 431 injector nozzles for breathing bags, 8.0 x 193 mm
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm



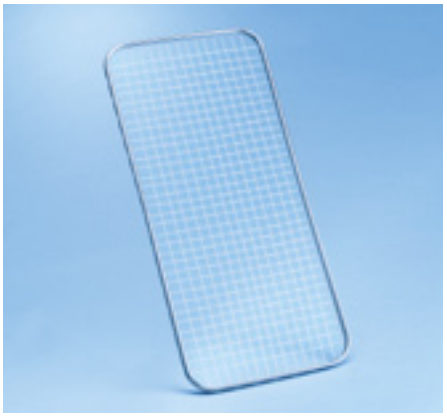
E 367 mobile injector unit with drying connection
For use in PG 8535, PG 8536
- For intubation material
- 20 nozzles 2.5 x 30 mm
- 20 nozzles 4.0 x 30 mm
- 40 spring clips for nozzles
- 1 x E 378 insert 1/1 mesh tray H 80 + 30, W 460, D 460 mm
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

E 368 mobile injector unit with drying unit for intensive care
For use in PG 8535, PG 8536
- For narrow-gauge breathing tubes, fitted with:
- 10 nozzles, 4.0 x 30 mm with spring supports
- 14 nozzles, 6.0 x 220 mm with spring supports
- 2 x E 431 injector nozzles for breathing bags, 8 x 193 mm
- 1 instrument box, UTS/1 H 93, W 102, D 180 mm
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

U 167 lower basket for anaesthetic equipment
For use in PG 8535, PG 8536
- For 4 soda lime containers, 9 secretion jars and various other utensils
- 20 x 200 mm holders, spacing approx. 95 mm
- Plastic-coated
- H 220, W 535, D 516 mm



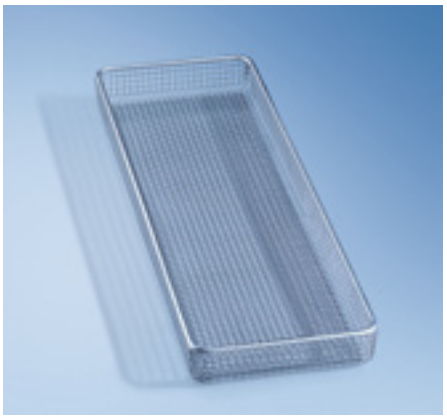
E 496 injector nozzle
- For intubation material, 4 x 120 mm



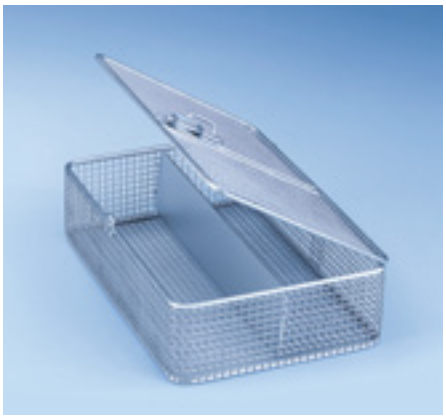
A 6 cover net 1/2
- Stainless-steel frame with polypropylene mesh (particularly stable and durable)
- e.g. for E 142 mesh tray
- 215 x 445 mm

E 427 module
- Rack for 6 laryngoscopes
- H 92, W 210, D 134 mm

UTS Utensil box
- For sundry small items, with lid
- 3 compartments, compartment size 115 x 100 mm
- H 93, W 102, D 350 mm



E 430/1 insert 1/3 mesh tray
- Wire mesh, mesh size 5 mm
- H 40, W 150, D 445 mm



E 468 1/4 mesh insert with lid and compartments
- For various utensils
- Made from welded cross-wires/stainless steel with lid and compartments
- Mesh size 5 x 5 x 1 mm
- H 70/76, W 250, D 170 mm

Inserts for upper and lower baskets

E 417 insert 2/5
- For approx. 30 ear and nose speculae
- 280 compartments, approx. 13 x 13 mm
- Mesh size on base 1.7 mm
- For upper or lower basket
- H 63, W 173, D 445 mm

E 803 insert 2/5
- For ear and nose speculae
- 160 compartments, approx. 13 x 13 mm
- Mesh size on base 1.7 mm
- For upper or lower basket
- H 63, W 165, D 317 mm

E 374 insert 2/5
- For ENT instruments such as inhalation tubes, etc.
- 24 compartments, approx. 45 x 45 mm
- 27 compartments, approx. 12 x 12 mm
- Mesh size on base 1.7 mm
- For upper or lower basket
- H 63, W 173, D 445 mm

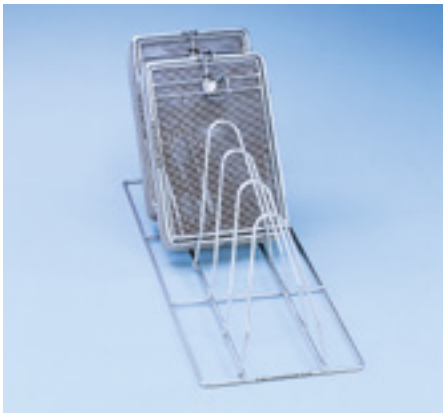
Further inserts for ENT applications:
E 373 insert on Page 26
and E 106 inserts on Page 29

E 416 insert 1/4
- For 6 one or two-piece speculae
- 7 holders, spacing 40 mm
- For upper or lower basket
- H 157, W 178, D 279 mm

E 130 insert 1/2
- For 10 trays
- 11 holders, H 170 mm, spacing 35 mm
- For lower basket
- H 180, W 180, D 445 mm

E 806/1 insert
- For 8 half-trays or shallow trays
- 9 holders (8 compartments)
- Max. tray size 290 x 30 mm
- H 114, W 305, D 348 mm

E 339/1 insert 3/5
- For 13 half-trays or shallow trays
- 14 holders (13 compartments)
- Max. tray size 290 x 20 mm
- H 115, W 305, D 498 mm



E 131/1 insert 1/2
- For 5 mesh trays/kidney dishes
- 6 holders, H 160 mm, spacing 80 mm
- For lower basket
- H 168, W 180, D 495 mm

E 800 insert
- For 3 mesh trays/kidney dishes
- 4 holders, H 165 mm, spacing approx. 68 mm
- For upper or lower basket
- H 165, W 140, D 290 mm

E 492 insert 1/2
- For 9 kidney dishes
- 9 holders, H 86 mm, spacing 49 mm
- For lower basket
- H 120, W 256, D 474 mm

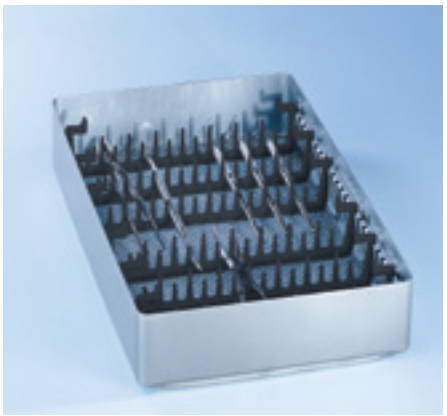
Inserts for upper and lower baskets

E 146 insert 1/6 (illustrated)
- Mesh size on base 3 mm
- Mesh size on sides 1.7 mm
- Mesh size on lid 8 mm
- 2 hinged handles
- For upper or lower basket
- H 55, W 150, D 225 mm

E 363 insert 1/6
- Mesh size 1 mm, with lid
- For upper or lower basket
- H 55, W 150, D 225 mm

E 328 inlay rack
- For instruments in upright position
- For E 146/E 363

E 373 insert 1/6
- For ENT instruments (e.g. ear funnels)
- Wire mesh, mesh size:
  Base 3 mm, sides 1.7 mm,
  lid 3 mm
- 28 upright supports
- 2 hinged handles
- For upper or lower basket
- H 55, W 150, D 225 mm



E 441/1 insert 1/4
- For micro-instruments
- Mesh size on base 1.7 mm
- Solid sides, stackable
- Internal divisions with 6 adjustable supports provide the ideal storage for instruments.
- For upper or lower basket
- H 60, W 183, D 284 mm

E 337/1 insert 2/5
- For micro-instruments, upright
- 12 compartments, approx. 22 x 28 mm
- 4 compartments, approx. 25 x 28 mm
- 4 plastic receptacles
- 48 compartments, approx. 13 x 14 mm
- H 113, W 173, D 445 mm

E 802/1 insert
- For micro-instruments, upright
- 8 compartments, approx. 30 x 28 mm
- 8 compartments, approx. 16 x 28 mm
- 3 plastic receptacles
- 15 compartments, approx. 16 x 20 mm
- H 113, W 163, D 295 mm

E 142 insert 1/2
- DIN mesh tray
- 1 mm wire gauge
- Mesh size 5 mm
- 5 mm all-round frame
- 2 hinged handles
- Max. load 10 kg
- H 45/55, W 255, D 480 mm

E 143 insert 1/4
- Mesh tray
- 1 mm wire gauge
- Mesh size 5 mm
- 5 mm all-round frame
- 2 hinged handles
- Max. load 5 kg
- For upper or lower basket
- H 45/55, W 255, D 230 mm

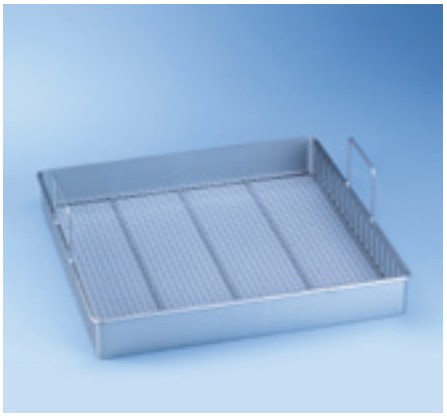
E 378 insert 1/1
- For various utensils
- 0.8 mm wire gauge
- Mesh size 1.7 mm
- 5 mm all-round frame
- 2 handles
- For lower basket
- H 80/110, W 460, D 460 mm

E 473/1 mesh insert with lid
- Mesh basket with lid for small parts
- Hooks in place
- H 85, W 60, D 60 mm

E 379 insert 1/2
- For various utensils
- 0.8 mm wire gauge
- Mesh size 1.7 mm
- 5 mm all-round frame
- 2 handles
- For upper or lower basket
- H 80/110, W 180, D 445 mm

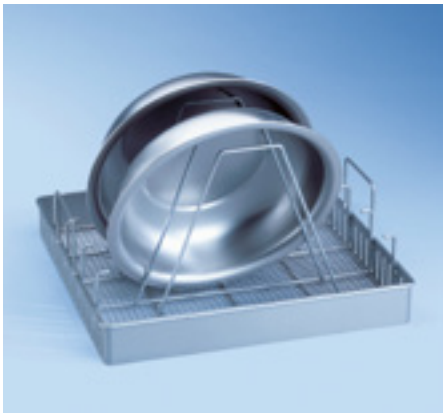
E 451 insert 1/6
- Mesh tray with lid for sundry small items
- Wire gauge:
  1 mm base
  0.8 mm sides,
  1 mm lid
  Mesh gauge:
  3 mm base
  1.7 mm sides
  8 mm lid
- Internal divisions removable
- H 55, W 150, D 225 mm

E 484 insert for upper and lower baskets



E 484 insert 1/1
- For various utensils
- Wire mesh: 1.4 mm
  Mesh size: 8 mm
- For holders
  – 4 x E 485 for 9 kidney dishes or
  – 4 x E 486 for 4 bowls or
  – 4 x E 487 for 16 theatre shoes or
  – 3 x E 488 for 9 breathing masks or
  – 11 x E 489 universal holders
  e.g. for insoles
- H 65 (150), W 470, D 480 mm

Sample features:
E 484 with 4 x E 485 holders
- Can be fitted with 4 holders
  E 485 for 9 kidney dishes



Sample features:
E 484 with 4 x E 486 holders
- Can be fitted with 4 holders
  E 486 for 4 bowls

Sample features:
E 484 with 4 x E 487 long holders
- Fitted with 4 x E 487 holders, each for 4 theatre shoes, height 280 mm
- Dimensions E 487
  H 280, W 464, D 10 mm

Sample features:
E 484 with 11 x E 489 universal holders
- Fitted with 11 x E 489 universal holders, e.g. for insoles, height 60 mm
- Dimensions E 489
  H 60, W 464, D 10 mm

Sample features:
E 484 with 3 x E 488 holders
- Fitted with 3 x E 488 holders, each for 9 breathing masks

Inserts

E 106 insert 1/2 (illustrated)
- For ENT instruments (e.g. ear funnels)
- 10 spring hooks, H 175 mm
- 16 spring hooks, H 105 mm, Spacing approx. 60 mm
- H 186, W 195, D 430 mm

E 106/1 insert 1/2
- 26 small spring hooks, H 105 mm, Spacing approx. 60 mm
- H 116, W 195, D 410 mm

E 106/2 insert 1/2
- 13 large spring hooks, H 175 mm, spacing approx. 85 mm
- H 186, W 180, D 420 mm

E 125 insert 1/1* (illustrated)
- For 9 bottles, 2,000 ml
- 9 compartments, compartment sizes (bottle) 125 x 125 mm
- Compartment size (neck) 55 x 55 mm
- H 224, W 460, D 460 mm

E 124 insert 1/1*
- For 16 bottles, 1,000 ml
- 16 compartments, compartment sizes (bottle) 100 x 100 mm
- Compartment size (neck) 48 x 48 mm
- H 148, W 460, D 460 mm

E 129 insert 1/1
- For 20 bottles, 500 ml
- 20 compartments, compartment sizes (bottle) 84 x 84 mm
- Compartment size (neck) 46 x 46 mm
- H 113, W 445, D 445 mm

E 128 insert 1/1
- For 24 bottles, 250 ml
- 24 compartments, compartment sizes (bottle) 71 x 71 mm
- Compartment size (neck) 46 x 46 mm
- H 103, W 445, D 445 mm

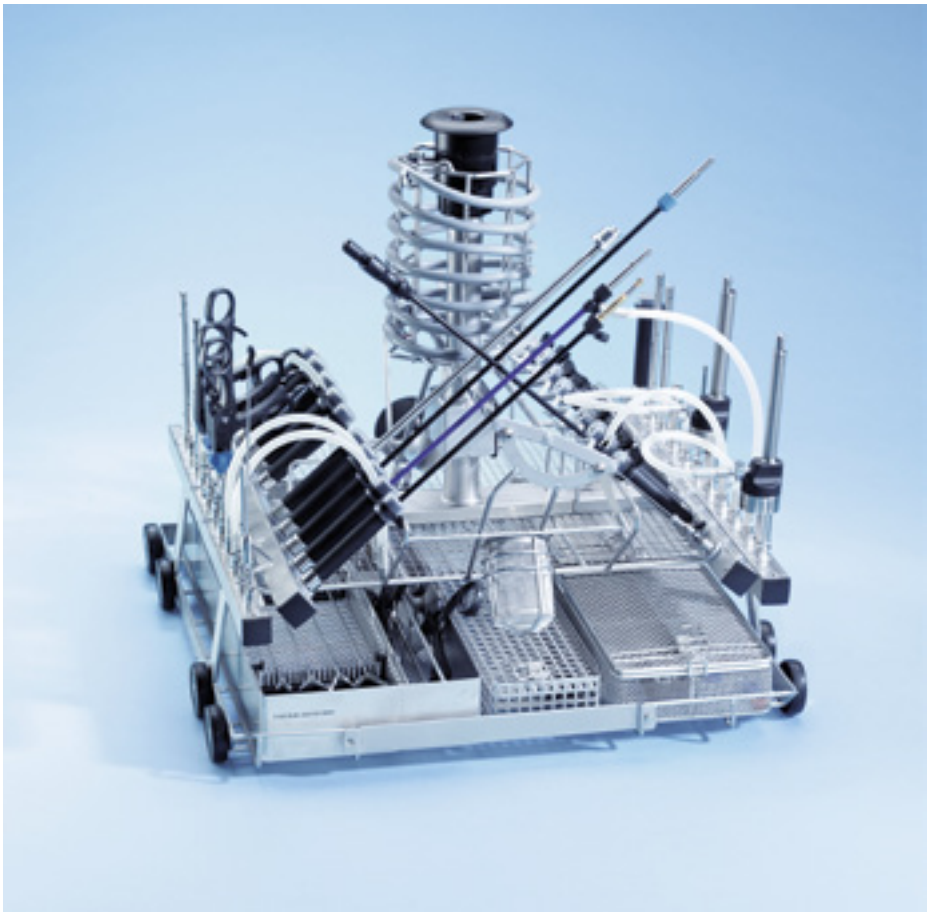
E 127 insert 1/1
- For 44 bottles, 100 ml
- 44 compartments, compartment sizes (bottle) 57 x 57 mm
- Compartment size (neck) 46 x 46 mm
- H 102, W 445, D 445 mm

E 126 insert 1/1 (illustrated)
- For 48 bottles, 50 ml
- 48 compartments, compartment sizes (bottle) 45 x 45 mm
- Compartment size (neck) 28 x 28 mm
- H 83, W 445, D 445 mm

Description
- Baskets and inserts only suitable for the simple cleaning of infusion bottles
- Neither direct injection nor double spray system according to GMP guidelines.

* Not for use in upper basket

Minimally invasive surgical instruments



Injector rail on E 450/1

E 450/1 mobile injector unit with drying connection
For use in PG 8535, PG 8536
- For MIS instruments, max. length 550 mm
- E 451 mesh tray for sundry small items
- Loading on 2 levels
- Dimensions/clearance from bottom level upwards:
  Level 1 = H 110, W 480, D 500 mm (for inserts, e.g. 2 x E 457)
- Level 2 = H 360, W 350, D 200 mm
- Applications
  E 451 mesh tray for small items
  E 457 insert for separable MIS instruments
  E 460 insert for rigid fibre optics
  E 473 mesh tray for small items
  E 444 spiral rack for lightguide and irrigation hoses
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 502, W 535, D 515 mm

Scope of delivery:
3 x E 336 irrigation sleeves, 121 mm
2 x E 362 blanking screws
15 x E 442 irrigation sleeves, 121 mm, for MIS instruments, 4-8 mm
5 x E 443 irrigation sleeves, 121 mm, for MIS instruments, 8-12 mm
1 x E 445, 12 caps for irrigation sleeves, 6 mm
1 x E 446, 12 caps for irrigation sleeves, 10 mm
3 x E 447 female adapters, for male LuerLock
6 x E 448 silicone hose 300 mm, 5 x 1.5 mm with male LuerLock adapter
5 x E 449 male adapter, for female LuerLock
1 x E 451 1/6 mesh insert, with lid
3 x E 452 injector nozzles, 2.5 x 60 mm
8 x E 453 injector nozzles, 4.0 x 110 mm with spring support
6 x E 454 injector nozzles for trocar sleeves, 10-15 mm
4 x E 456 spring stays for MIS instruments, e.g. scissors, forceps, etc.
3 x E 464 sleeves for E 454 injector nozzles
2 x E 472 spring clip for injector nozzle, Ø 4.0 mm

Minimally invasive instruments
Modular system for PG 8536 washer-disinfector

E 474/4 injector carriage with drying connection

- For use in PG8536
- Carriage for inserts/modules
- Modular system for up to 2 MIS OP sets
- For lumened instruments in 3 inserts/ modules with integrated nozzles/adapters
- Applications:
  E 903 module insert for MIS instruments/urology
  E 905 module insert for short MIS instruments
  E 906 module insert for long MIS instruments
  E 444 spiral rack for lightguide and irrigation hoses
  E 460 insert for rigid fibre optics
  E 457 insert for separable MIS instruments or
  E 142 DIN mesh tray
- Connection for hot-air drying unit
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 507, W 535, D 515 mm

Scope of delivery:

- 2 x E 362 blanking screws
- 3 x E 447 adapters, female

Minimally invasive surgical instruments
Modular system for PG 8536 washer-disinfector

When it comes to quality assurance in surgeries and hospitals, the optimum reprocessing of surgical instruments is a central issue.

The use of instruments in transurethral resection invariably means instruments contaminated right down to the last lumen and crevice. Furthermore, these often very delicate instruments and the short duration of surgery in this field poses huge challenges in terms of the safe and fast provision of fresh instruments and adequate reprocessing. As in all medical fields, the motto is:

There can be no successful disinfection and sterilisation without thorough cleaning.

Miele has developed a systematic and comprehensive approach to the reprocessing of minimally invasive surgical instruments, e.g. from urology, arthroscopy and laparoscopic surgery which allows the decentral reprocessing of entire instrument sets – efficiently, gently and safely. The new PG 8536 washer-disinfector represents a new high-performance unit with freely programmable controls. The E 474/4 load carrier and the modular inserts for instruments offer distinct advantages with respect to handling, ergonomics, the protection of personnel and flexibility. This standardised reprocessing method together with documented processes provides the safety margins a commitment to quality demands.

The modules used can be configured to suit individual sets of surgical instruments, which are easily connected using on-board adapters. For urological applications, the E 903 module is available for TUR sets. Sets of instruments from other disciplines, e.g. laparoscopy, require the use of E 905 module inserts for short instruments or the E 906 for long instruments.

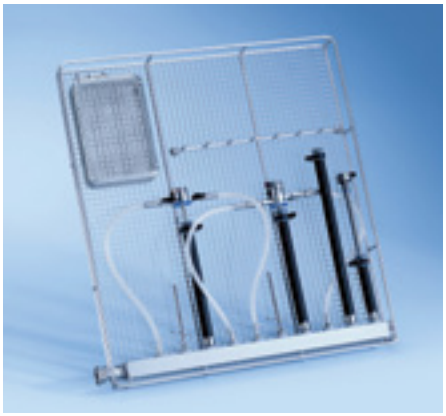
For dental clinics, Miele offers the E 919 module for transmission instruments, designed for the reprocessing of large quantities of turbines, contra-angles and hand-pieces. Each module is able to accommodate 10 transmission instruments and hence 3 modules offer ample space for 30 transmission instruments per cycle in the E 474.

Once loaded, the modules are placed in the E 474/4 load carrier and connected. Given the need to accommodate application-specific variations, Miele offers an empty load carrier without modules and inserts, thereby allowing users to configure units individually to meet particular needs, particularly those in the field of minimally invasive surgery.

Note
Miele's systematic approach to reprocessing minimally invasive and TUR surgical instruments is illustrated by the video entitled 'Cleaning and disinfection of minimally invasive instruments', available on DVD.
For further information:
www.miele-professional.de

E 905/1 modular insert
- For short MIS instruments
- 16 receptacles
- Sectioned for arthroscopes, laparoscopes etc.
- H 40, W 461, D 510 mm

Supplied as standard with:
- 1 x E 336 MIBO injector sleeve for pipettes/MIS instruments
- 2 x E 362 blanking screws
- 1 x E 442 injector sleeves for MIS instruments, 4–8 mm
- 2 x E 447 female adapters, for male LuerLock
- 4 x E 448 silicone hoses, 300 mm, 5 x 1.5 mm with male LuerLock adapters
- 2 x E 449 male adapter, for female LuerLock
- 4 x E 452 injector nozzles, 2.5 x 60 mm
- 3 x E 453 injector nozzles, 4.0 x 110 mm with spring supports
- 3 x E 454 injector nozzles for trocar sleeves, 10-15 mm
- 1 x E 464 sleeve for E 454 injector nozzles
- 1 x E 472 spring support for injector nozzle, 4 mm
- 1 x E 907/1 insert / mesh tray with lid for small parts



E 903/1 modular insert
- For TUR sets (transurethral resection)
- 10 receptacles
- H 40, W 461, D 510 mm

Supplied as standard with:
- 3 x E 442 irrigation sleeves, 121 mm, for MIS instruments, 4–8 mm
- 1 x E 444 insert/spiral rack for fibre optic cables and irrigation tubes
- 1 x E 447 female adapters, for male LuerLock
- 4 x E 448 silicone hoses, 300 mm, 5 x 1.5 mm with male LuerLock adapters
- 3 x E 453 injector nozzles, 4.0 x 110 mm with spring supports
- 1 x E 454 irrigation sleeve for bladder syringe or trocar sleeve
- 3 x E 467 injector sleeves, 205 mm, for MIS instruments/forceps
- 3 x E 469 injector sleeves, 300 mm, for MIS instruments/urology
- 1 x E 907/1 insert / mesh tray with lid for small parts
- 2 m silicone hose, Ø 5 mm
- 2 plastic supports, for use in E 474/1, E 902/1 mobile units

E 906/1 modular insert
- For long shafted MIS instruments
- 10 receptacles
- Sectioned for arthroscopes, laparoscopes etc.
- H 40, W 461, D 510 mm

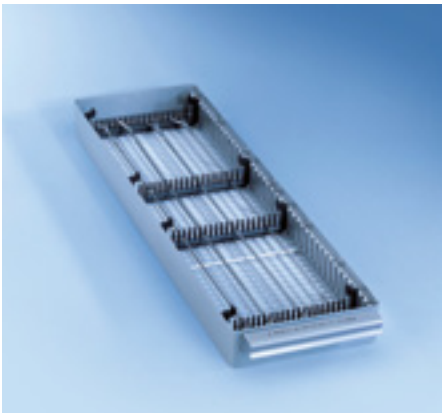
Supplied as standard with:
- 1 x E 336 MIBO injector sleeve for pipettes/MIS instruments
- 2 x E 362 blanking screws
- 5 x E 442 injector sleeves for minimally invasive instruments, 4–8 mm
- 3 x E 443 injector sleeves for MIS instruments, 8–12 mm
- 2 x E 448 silicone hoses, 300 mm, 5 x 15 mm with male LuerLock adapters
- 1 x E 454 injector nozzles for trocar sleeves, 10-15 mm
- 2 x E 456 spring stays for MIS instruments
- 1 x E 464 sleeve for E 454 injector nozzles
- 1 x E 908 insert for separable MIS instruments/inner shafts

E 919
For connection of 10 turbines/hand-pieces and contra-angles as well as dental and ENT instruments
- For use in E 474
- Reprocessing using VARIO TD programme
- Cleaning should be performed using neutral to mildly alkaline liquid detergents
- Combination with MIS instruments possible
- Scope of delivery: 10 receptacles for transmission instruments, without adapters (ADS 1-3)

MIS accessories

E 451 insert 1/6
- Mesh tray with lid for sundry small items
- Wire gauge:
  1 mm base
  0.8 mm sides,
  1 mm lid
  Mesh gauge:
  3 mm base
  1.7 mm sides
  3 mm lid
- Internal divisions removable
- H 55, W 150, D 225 mm

E 907/1 insert/mesh tray
- Mesh tray with lid for sundry small items
- Mesh size 3 x 1 mm
- Hooks to slot into E 905
- H 46, W 129, D 170 mm



E 908/1 insert
- For separable MIS instruments/inner shafts
- Mesh width 8 x 1 mm, solid sides
- Individual arrangements with 4 holders for securely positioning 8–12 shafts from disassembled MIS instruments
- Hooks to slot into E 906
- H 36, W 130, D 460 mm

E 142 insert 1/2
- DIN mesh tray
- 1 mm wire gauge
- Mesh size 5 mm
- 5 mm all-round frame
- 2 hinged handles
- Max. load 10 kg
- H 45/55, W 255, D 480 mm

E 473/1 insert/filter
- Mesh basket with lid for small parts
- For hooking onto mesh trays
- H 85, W 60, D 60 mm

E 444 insert/spiral rack
- For fibre optics and irrigation tubes
- Fibre optics and tubes wound spirally around central rack
- H 168 mm, with folding clip, 214 mm
- Ø 140 mm

E 457 insert 1/2

- For separable MIS instruments (e.g. 12 handles and inner shafts)
- Mesh base, 3 mm mesh size, solid sides
- Welded holders for 8-12 handles, variable arrangement, with 3 holders for storing and securing 8-12 shafts from disassembled MIS instruments
- H 62, W 192, D 490 mm

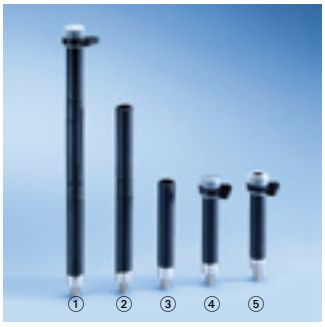
E 460 insert 1/4

- For rigid fibre optics of varying lengths
- Mesh size, base 8 x 1 mm
  Sides/lid 7 x 7 x 3 mm
- With 3 holders for 2 rigid fibre optics of varying lengths
- H 53, W 100, D 430 mm

E 362 blanking screw

- M 8 x 1 thread, to close connectors on mobile units

MIS accessories



E 469 irrigation sleeve ①
- For MIS instruments/ urology
- Length 300 mm, 11 mm
- Cap, 6 mm (Mat. no. 4174960)
- Clamp (Mat. no. 4174850)

E 467 irrigation sleeve ②
- For MI instruments/forceps
- Length 205 mm, 11 mm

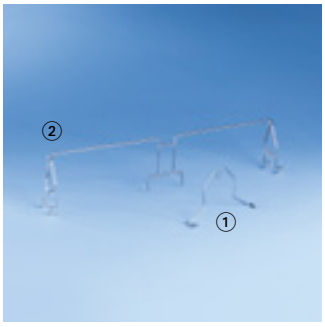
E 336 irrigation sleeve ③
- Length 121 mm, 11 mm

E 442 irrigation sleeve ④
- For MIS instruments, 4-8 mm, screw thread
- Length 121 mm, 11 mm
- Cap, 6 mm (Mat. no. 4174960)
- Clamp (Mat. no. 4174850) Clamp (Mat. no. 4174850)

E 443 irrigation sleeve ⑤
- For MIS instruments, 8-8.5 mm
- Length 121 mm, 11 mm
- Cap, 10 mm (Mat. no. 4174970)
- Clamp (Mat. no. 4174850)

E 445 caps
- 12 caps for irrigation sleeves
- 6 mm

E 446 caps
- 12 caps for irrigation sleeves
- 10 mm



E 456 spring stay ①
- For MIS instruments

E 475 holder bracket ②
- For MIS insert
- To secure irrigation sleeves (Mat. no. 4692430)

E 447 adapter, female ①
- For LuerLock, male, screw thread for E 450/1, O 176, O 183

E 449 adapter, male, without centre pin* ②
- For LuerLock, female, screw thread for E 450/1, O 176, O 183

E 452 injector nozzle ③
- Length 60 mm, 2.5 mm, screw thread, for mobile injector unit

E 453 injector nozzle ④
- Clip bracket
- Length 110 mm, 4 mm, screw thread, for mobile injector unit

E 448 silicone hose ⑤
- LuerLock adapter, male
- Length 300 mm, 5 mm
- Nozzle, 8 x 1 mm thread

* Adapter with centre pin available from Spares, Mat. no. 4224230.

E 464 adapter
- For injector nozzle E 454, 13 x 65 mm
- Height-adjustment clip (Mat. no. 4692440)

E 454 injector nozzle
- For trocar sleeves 10-15 mm, 8 x 150 mm
- Height-adjustment spring (Mat. no. 4692430)

E 471 spring clamp
- For injector nozzle 2.5 mm, for E 452

E 472 spring clamp
- For injector nozzle 4.0 mm, for E 351, E 453

For ophthalmological micro-instruments

Geuder AG recommends that their current range of instruments be reprocessed in a Miele washer-disinfector.

Geuder®
Precision made in Germany

E 429/1 mobile injector unit
For use in PG 8535
- For ophthalmological/micro-instruments
- For 2-4 OP sets
- Built-in spray arm
- Loading on 2 levels
- Vertical clearances from bottom:
  Level 1: 125 mm
  Level 2: approx. 150 mm from top of threaded bush
- Level 1:
  For inserts (e.g. E 441/1 or E 142)
- Level 2: left-hand side:
  20 connectors for lumened instruments (10 LuerLock adapters, male, 10 LuerLock adapters, female), connection for E 478 is on feed pipe
- Level 2, right-hand side:
  16 LuerLock adapters, male, with horizontal hose
- With holder for ML/2 magnetic strip for automatic mobile unit recognition

Supplied as standard with:
- 1 bag E 476 (50 off) and
- 1 bag E 477 (20 off)
- 8 x E 790 adapters LuerLock female/female
- 8 x E 791 adapters, LuerLock female/male

Note:
The E 429/1 requires a second feed pipe from the bottom, hence the bottom spray arm in the machine must be removed.

For ophthalmological micro-instruments

E 792
LuerLock connector, male with silicone hose

E 790
Connector
LuerLock adapters, female/female

E 791
Connector
LuerLock female/male

E 440/3 mobile injector unit
For use on PG 8536
- For ophthalmological/micro-instruments
- For 4 OP sets
- Built-in spray arm
- Loading on 3 levels
- Levels 1 and 2: For inserts, (e.g. E 441/1) or E 142
- Level 3: left-hand side:
  20 connectors for lumened instruments (10 LuerLock adapters, male, 10 LuerLock adapters, female), connection for E 478 is on feed pipe
- Level 3, right-hand side:
  16 LuerLock adapters, male, with horizontal hose arrangement
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- Clearances from bottom:
  Level 1: 115 mm
  Level 2: 86 mm
  Level 3: approx. 110 mm from top of threaded sleeve

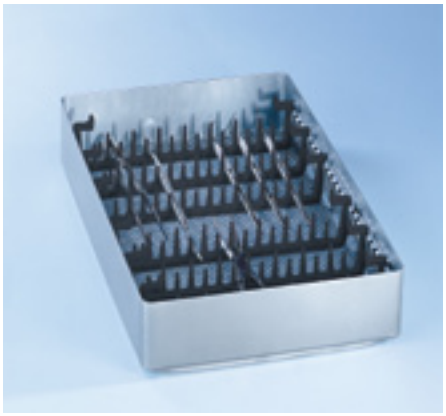
Supplied as standard with:
- 1 bag E 476 (50 off) and
- E 477 bag (20 off)
- 8 x E 790 adapters LuerLock female/female
- 8 x E 791 adapters, LuerLock female/male

Adapters available individually:
- Pack of 4 x E 790
  LuerLock female/female
- Pack of 4 x E 791
  LuerLock female/male
- Pack of 4 x E 792
  LuerLock male with silicone hose (160 mm)

Accessories for micro-instruments

E 478/1 adapter
- For 4 narrow-lumened cannulae (Sautter cannulae)

FP
- Stainless-steel filter insert for E 478
- Reprocessable
- Diameter 30 mm



E 441/1 insert 1/4
- For micro-instruments
- Mesh size on base 1.7 mm
- Solid sides, stackable
- Internal divisions with 6 adjustable supports provide the ideal storage for instruments.
- H 60, W 183, D 284 mm

E 142 insert 1/2
- DIN mesh tray
- 1 mm wire gauge
- Mesh size 5 mm
- 5 mm all-round frame
- 2 hinged handles
- Max. load 10 kg
- H 45/55, W 255, D 480 mm

Illustration shows E 142 with E 476 receptacles and E 477 stops

E 476 adapters
- For use in mesh trays with 5 mm mesh (e.g. E 142)
- 50 per bag
- For instruments with a diameter of 4 to 8 mm

E 479 adapters
- For use in mesh trays with 5 mm mesh (e.g. E 142)
- 50 per bag
- For instruments with a diameter of up to 4 mm

E 477 stoppers
- For use in mesh trays with 5 mm mesh (e.g. E 142)
- 20 per bag

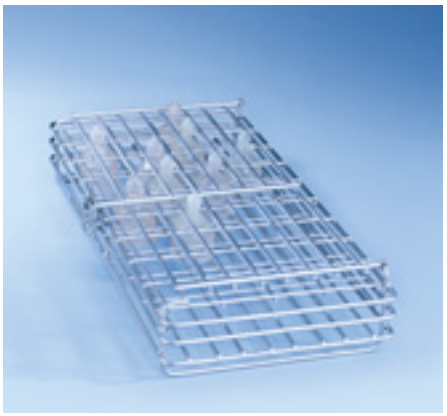
Inserts for baby bottles and accessories

E 135 insert 1/2
- Container for 19 baby bottles à 250 ml
  Bottle size 56 x 56 mm
  Neck 49 x 49 mm
- H 194, W 192, D 447 mm incl. lid
- For upper or lower basket

E 135/1 insert 1/2
- For 19 baby bottles à 110 ml
  Bottle size 51 x 51 mm
  Neck 45 x 45 mm
- H 135, W 192, D 447 mm
- For upper or lower basket

E 135/2 insert 1/2
- For 19 baby bottles à 90 ml
  Bottle size 51 x 51 mm
  Neck 42 x 42 mm
- H 125, W 192, D 447 mm
- For upper or lower basket

E 135/3 insert 1/2
- For 19 baby bottles à 120 ml
  Bottle size 56 x 56 mm
  Neck 49 x 49 mm
- H 135, W 192, D 447 mm
- For upper or lower basket



E 364 insert 1/2
- Container for 36 wide-necked teats
- 36 compartments, 41 x 41 mm
- Hinged lid with catch
- H 77, W 215, D 445 mm

E 458 insert 1/2
- Container for 36 screw-on teats
- 36 compartments, 29 x 29 mm
- Hinged lid with catch
- H 63, W 215, D 445 mm

AK 12 insert 1/2 basket version
- For breast pumps
- For various utensils
- H 67/127, W 225, D 442 mm

(A 14 lid not included)

Baby bottles:
Reprocessing and transportation system

Baby bottles are generally washed at ward level. Miele's G 7862 and PG 8535 washer-disinfectors with a height of 820 mm (excl. lid) are interesting propositions as they can be installed as undercounter units. Miele has also developed a highly practical container system for transporting, handling, washing and disinfecting baby bottles. The containers are able to accommodate all standard bottle sizes. This allows 76 baby bottles to be washed and disinfected per cycle. Teats and screw-on teat holders are each placed in appropriate inserts.

1. Used and empty baby bottles are placed in E 135 containers with their necks facing up.

2. The container is then sealed with a mesh lid and turned by 180° (bottle necks facing downwards) and placed in the disinfector.

3. After washing and disinfection, the lid is removed and the bottles can be refilled whilst still in the container.

4. Full bottles are then sealed and stored until needed in a refrigerator.

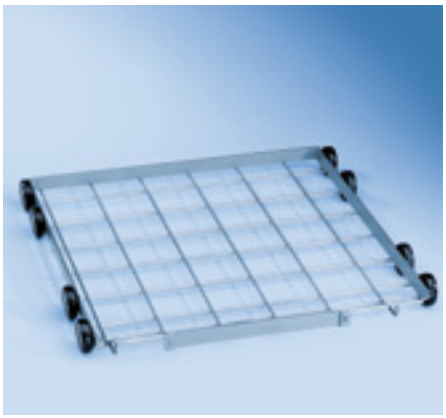
Inserts for theatre shoes

Theatre shoes should be thoroughly washed and disinfected after operations. Most common are theatre shoes made from polyurethane (PU). In the past, the automatic reprocessing of these heat-sensitive items relied on chemo-thermal processes and a temperature of 60°C with a 5-minute holding time. However, the chemical disinfectants involved pose handling problems and are costly.
After intensive trials, Miele has now developed a purely thermal reprocessing method for theatre shoes which has been validated in practice.
This reprocessing programme is available on models PG 8535 and PG 8536.

Thorough washing at temperatures below 55°C is followed by thermal disinfection in the last water intake cycle at a temperature of 75°C held for 2 minutes. At 22 minutes (excluding drying), this new process is considerably shorter than chemo-thermal processes (approx. 37 minutes) and dispensing with chemical disinfectants offers both environmental and economical benefits.

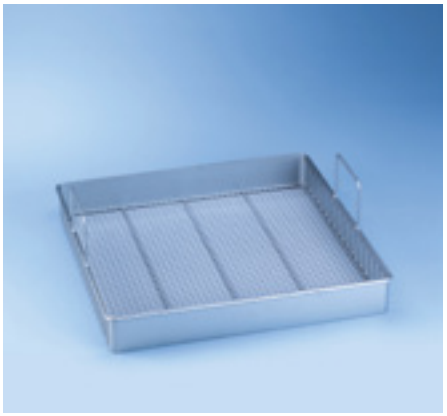
O 167 upper basket
- For up to 28 theatre shoe insoles
- Built-in spray arm
- H 195, W 531, D 475 mm

O 173 upper basket
- For up to 8 theatre shoes, max. Size 41
- Built-in spray arm
- H 195, W 531, D 475 mm



U 874/1 lower basket/open front
- For E 484 adapter
- Open front
- For various inserts
- Vertical clearances in combination with upper basket:
  O 176 approx. 110 mm
  O 177/1 approx. 220 mm 20-40 mm
  O 183 approx. 185 mm +/–20 mm
  O 188/1 approx. 270 mm +/–20 mm
  O 190/1 approx. 220 mm +/– 20 mm
  O 191 approx. 295 mm
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 50, W 534, D 515 mm

U 168/1 lower basket
- For up to 20 theatre shoes, max. Size 45
- 20 holders, 295 mm
- With holder for ML/2 magnetic strip for automatic mobile unit recognition
- H 315, W 535, D 515 mm



E 484 insert 1/1
- For various utensils
- Wire mesh: 1.4 mm
  Mesh size: 8 mm
- Fitted with holders
  – 4 x E 487 for 16 theatres shoes or
  – 11 x E 489 universal holders
    e.g. for insoles
- H 65 (150), W 470, D 480 mm

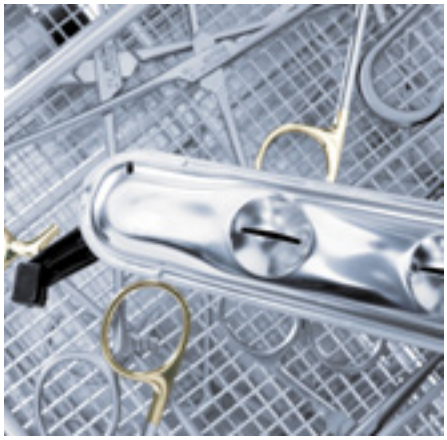
E 484 with 4 x E 487 long holders
- Fitted with 4 x E 487 holders,
  each for 4 theatre shoes, height 280 mm
- Dimensions E 487
  H 280, W 464, D 10 mm

E 484 with 11 x E 489 universal holders
- Fitted with 11 x E 489 universal holders,
  e.g. for insoles, height 60 mm
- Dimensions E 489
  H 60, W 464, D 10 mm

Transport trolleys, accessories

MT Mieltrans trolley
- Trolley for storing and transporting baskets and inserts
- 4 height-adjustable levels
- Loading dimensions W 549, D 599 mm
- Height-adjustment increments 102.5 mm
- 4 lockable wheels
- H 1985, W 616, D 662 mm

MC/1 Mielcar, supply and disposal trolley
- For loading washer-disinfectors and handling baskets and inserts
- 2 levels (sloping towards centre)
- Rail handle and docking plate
- Docking height H 640–885 mm, infinitely adjustable
- 4 wheels, of which 2 are lockable
- H 1000, W 630, D 814 mm (with docking plate raised D 960 mm)
- For use on PG 8536 and washer-disinfectors installed on 30 cm plinth

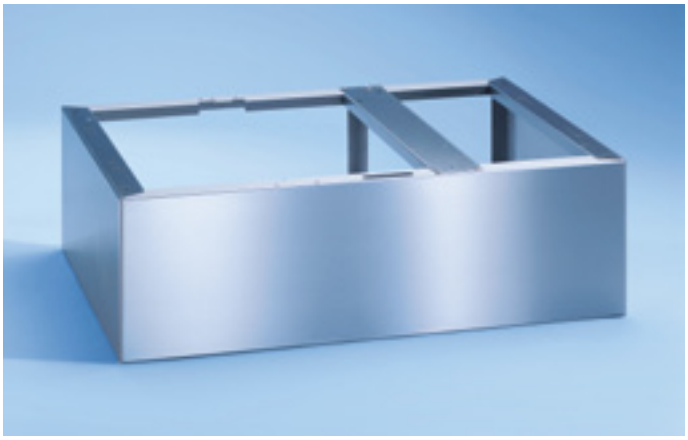


ML/2 magnetic strip
- Magnetic strip for automatic mobile unit recognition
- 5 magnets, configurable
- 15 possible combinations

Retrofittable magnetic spray arm
- For spray arm sensing function with retrofittable magnetic spray arms on PG 8535, PG 8536 on baskets/inserts without magnetic spray arms.

Plinths

UE 30-30/60-78 plinth
- For use with G 7895/1 and G 7896
- Stainless-steel plinth, bolted to machine
- H 300, W 300, D 600 mm



UC 30-90/70-78 plinth (illustrated)
- For use with PG 8535
- Stainless-steel plinth, bolted to machine
- H 300, W 900, D 700mm

Dispensing accessories

Dispenser modules and supply containers can be optionally accommodated in the G 7896 dispenser cupboard or in an existing cabinet

G 7896 dispenser unit
Housing unit for DOS modules and supply containers for undercounter installation
- H 850 (820), W 300, D 600 mm
- Compatible with G 7881, G 7891
- Freestanding unit, can be built under
- Unit with removable door
- Outer panelling in stainless steel or white
- Interior dimensions: H 530, W 249, D 480 mm on 3 levels
  Level 1: Removable pull-out drawer on telescopic runners for DOS modules
  Levels 2 and 3: Removable pull-out drawer on telescopic runners with drip tray and lock for canisters

Canister sizes
4 x 5l, 245 x 225 x 145 mm*
2 x 10 l, 140 x 193 x 307 mm
2 x 10 l, 223 x 203 x 321 mm
2 x 10 l, 229 x 193 x 323 mm
2 x 10 l, 194 x 204 x 353 mm
1 x 20 l, 289 x 233 x 396 mm
1 x 25 l, 288 x 234 x 456 mm

DOS K 60 dispenser module
- For liquid alkaline detergents and chemical disinfectants
- Peristaltic pump, adjustable via machine's electronic controls
- Integrated dispenser monitoring function ensuring high level of process security in compliance with EN ISO 15883
- Long siphon (300mm) for 5 l and 10 l canisters, incl level fill monitoring
- Length of connection lead: 1.90 m

- Option: Conversion kit, Part no. 5458030, for siphon (10-30 l containers) available from Spares.

DOS G 60 dispenser module
- For use on PG 8535
- For liquid alkaline detergents and chemical disinfectants
- Peristaltic pump, adjustable via machine's electronic controls
- Long siphon (300 mm) for 5 l and 10 l canisters, incl. level fill monitoring
- Length of connection lead: 1.90 m

DOS G 10 dispenser module
- For use on PG 8535
- For liquid acidic agents (surfactant, neutralising agent)
- Features as per DOS G 60

DOS NA 120
- For use on PG 8536
- Integrated bellows-type dispenser pump incl. ultrasound flow control for pH-neutral/alkaline detergents and chemical disinfectants
- Retrofittable by Service

DOS S 20
- For use on PG 8536
- Integrated bellows-type dispenser pump for surfactants and neutralising agents
- Retrofittable by Service

* Only possible with DOS K-60/1 dispenser with short siphon

Note
The use of liquid detergent is recommended in the VarioTD programme.

Miele
PROFESSIONAL

Accessories for reprocessing with fully demineralised water

G 7895/1 Aqua Purificator
- For use on G 7881, G 7891
- Housing unit for 2 x E 310/E 318 demineralisation cartridges
- Integrated conductivity meter
- Generally recommended quality for final rinse < 15 µS/cm
- H 850 (820), W 300, D 600 mm
- Freestanding unit, can be built under
- Outer panelling in stainless steel or white
- Electrical connection AC 230 V 50 Hz
- Water connection:
  1 x cold water, 3/4" threaded union
  1 x connection between cartridge and machine, 2.5 - 10 bar flow pressure to cartridge
  (pressure loss approx. 1 bar per cartridge)

E 310 full demineralisation cartridge charged
- Pressure-proof stainless-steel cartridge
- H 570, Ø 240 mm
- Complete with vent and pressure relief valve
- Contains 20 l of reusable mixed resin

Delivery capacity in l depends on the total salt content of the raw water and the max. acceptable conductivity.

Conductivity

	5 µS/cm	10 µS/cm
5° dH	4,250	4,500
10° dH	2,125	2,250
15° dH	1,420	1,500
20° dH	1,070	1,125
25° dH	850	950
30° dH	710	750

The information provided in this chart is intended as a guide only

E 318 full demineralisation cartridge, empty
- Can be charged with 20 l of single-use resin

Disposable resin
- 20 l homogenous, mixed-bed resins for E 318
- Box with 2 bags x 10 l, vacuum-sealed in plastic bags
- Replacement filter bag

E 316 refill set
- Plastic barrel with lid and funnel for 30 l of disposable resin

LWM Module C conductivity meter
- For E 310/E 318 water demineralisation cartridges
- H 118, W 235, D 110 mm
- Electrical connection AC 230 V 50 Hz
- 2 hoses, approx. 1.9 m, 3/4" threaded union
- Integrated conductivity meter:
  Range: 0–20 µS/cm
  1.5 µS/cm, corresponds to tridistilled water
  2.5 µS/cm, corresponds to bidistilled water
  20.0 µS/cm, corresponds to single-distilled water

Accessories for reprocessing with fully demineralised and softened water

E 313 wall valve (top)
- For manual delivery of demineralised water
- Pressure hose approx. 1.5 m, pressure-proof to 10 bar

E 314 cabinet mounted valve (bottom)
- For manual delivery of demineralised water
- Pressure hose approx. 1.5 m, pressure-proof to 10 bar

PG 8597 AquaSoft system, twin-tank water softener
- For continuous delivery of softened water, max. 40°dH
- H 570, W 360, D 360 mm
- Weight (excl. salt) approx. 30 kg
- Freestanding unit on castors. Filled from top.
- Plastic casing
- Capacity: 19 l/min (constant), max. delivery 30 l/min
- Demand-controlled twin-tank system
- Does not require connection to power supply
- Equipped with 2 x 4.5 l resin-filled canisters and 1 container for 20 kg of salt
- Water connection
  2 pressure hoses, approx. 1.5 m, ¾" threaded union
  1 x cold or hot water, max. 70°C
  Min. 1 bar intake flow pressure to system, max. static pressure 8 bar
  2.5 bar minimum flow pressure (machines without softener)
  3.5 bar min. flow pressure (machines with softener)
  1 x connection from system to machine
  2 drain hoses, approx. 1.5 m
  (DN 8 for reactivation water and overflow, odour trap and non-return valve to be provided on site)
- Water consumption 19 l/reactivation cycle

Technical data
G 7862

Washer-disinfectors	G 7862
Frontloading unit with bottom-hinged door, excl. baskets	•
Freestanding unit with lid, can be built under	•
Freshwater system, max. temperature 93°C	•
Circulation pump [Qmax. l/min.]	400
Controls/Programmes	
MULTI NOVOTRONIC / 8 programmes	•
Electric door lock	•
Buzzer, acoustic signal at end of programme	•
Programme recontinuation in event of power outage	•
Serial interface for process documentation,	•
Water connections	
1 x cold water, 0.5–10 bar flow pressure (50–1000 kPa)	•
1 x hot water, 0.5–10 bar flow pressure (50–1000 kPa)	•
No. of inlet hoses, ½" with ¾" threaded union, l = approx. 1.7 m	2
Drain pump DN 22, head height 100 cm	•
Steam condenser water drain (DN 22)	•
WaterProof System (WPS)	•
Electrical connection, supply lead approx. 1.7 m, 5 x 2.5 mm²	
3N AC 400 V 50 Hz/convertible to AC 230 V 50 Hz*	•
AC 230 V 50 Hz/convertible to 3N AC 400V 50Hz*	•
Heating [kW] (3N/ AC)	8.5/6
Circulation pump [kW] (3N/ AC)	0.7/0.7
Total rated load [kW] (3N/ AC)	9.2/6.7
Fuse rating [A] (3N/ AC)	3 x 15-16/1 x 30
Dispenser systems	
1 door dispenser for powder detergent	•
1 door dispenser for liquid surfactant	•
Connection options	
DOS K 60 for liquid detergents/chemicals	1

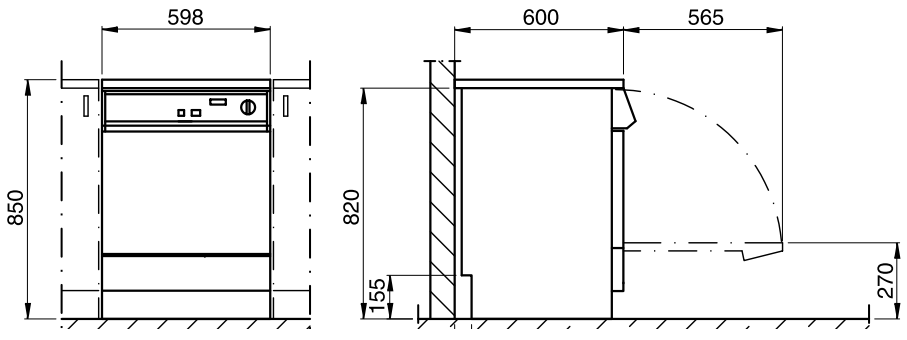
* Conversion results in changes to cycle times (charges apply)

Washer-disinfectors	G 7862
Water softeners	
For cold and hot water to max 70°C, Monobloc	•
Steam condenser	
Heat exchanger	•
Dimensions/Weight	
External dimensions H/W/D (without lid H 820 mm) [mm]	850/600/600
Cabinet dimensions H/W/D [mm]:	500/530/O=474 U=516*
Weight [kg]	72
Casing options	
Stainless steel (AE)	•
Compliance with standards	
DIN EN ISO 15883-1/2,	•
AS 4187 / AS 2945	•
Test certificates	
VDE, VDE-EMC, IP X1	•
MDD CE 0366	•
DVGW	•

* O = Upper basket, U = Lower basket

• = Standard, – = Not available

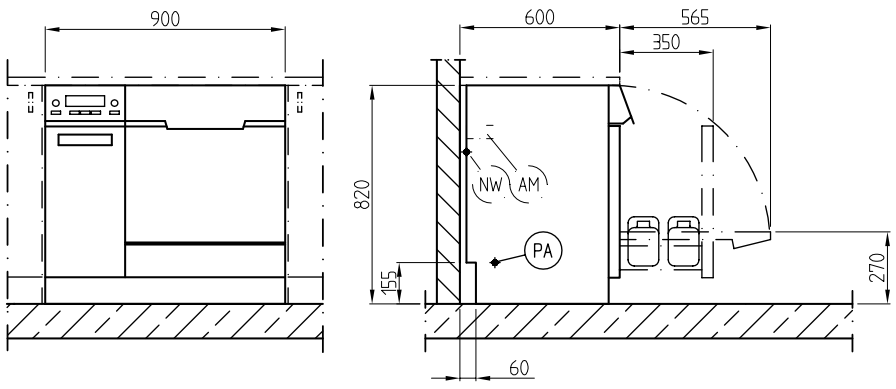
G 7862



Technical data
PG 8535 and PG 8536

Washer-disinfectors	PG 8535	PG 8536
Frontloading unit with bottom-hinged door, excl. baskets	•	•
Built-under/freestanding unit without lid	•	–
Freestanding unit with lid	–	•
Freshwater system, max. temperature 93°C	•	•
Circulation pump [Qmax. l/min.]	400	600
Controls/Programmes		
PROFITRONIC+, freely programmable	•	•
64 programme slots	•	•
Spray arm sensing	•	•
Magnetic strip for automatic mobile unit recognition	•	•
Conductivity metering	–	Optional
Network interface for process documentation	•	•
Serial printer interface for process documentation	•	•
Remote service enabled	•	•
Electric door lock	•	•
Peak-load negotiation	•	•
Water connections		
1 x cold water, flow pressure	50–1000 kPa	200–1000 kPa
1 x cold water for steam condenser, flow pressure	50–1000 kPa	200–1000 kPa
1 x hot water, flow pressure	50–1000 kPa	200–1000 kPa
1 x demineralised water (AD). flow pressure	50–1000 kPa	50–1000 kPa
Feed pump for unpressurised demineralised water	Optional	Optional
4 inlet hoses ½" with ¾" threaded union, l = approx. 1.7 m	•	•
Drain pump DN 22, head height 100 cm	•	•
Steam condenser water drain (DN 22)	•	•
WaterProof System (WPS)	•	•
Electrical connection		
3 N AC 400 V 50 Hz, supply lead approx. 1.7 m, 5 x 2.5 mm²	•	•
Heating [kW]	9.0	9.0
Circulation pump [kW]	0.7	1.2
Total rated load [kW]	9.7	10.2
Fuse rating [A]	3 x 16	3 x 16

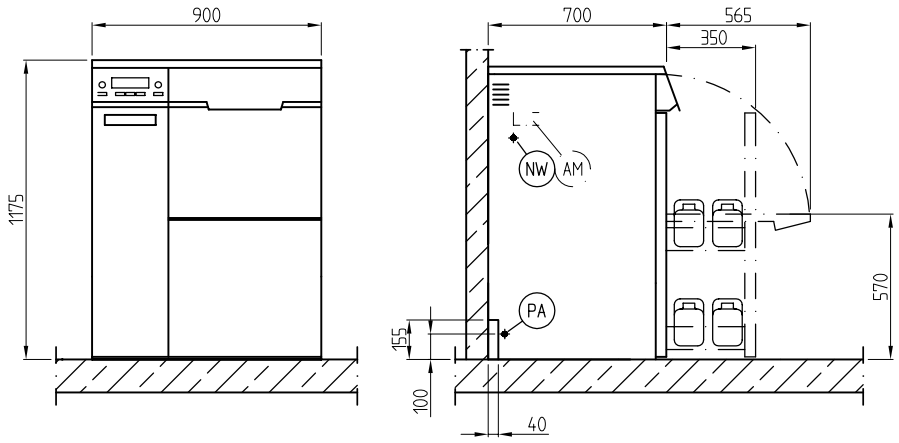
PG 8535



Washer-disinfectors	PG 8535	PG 8536
Dispenser systems		
1 dispenser pump for liquid acidic agents	• (Peristaltic pump)	• (Bellows-type pump)
1 dispenser pump for liquid detergent	• (Peristaltic pump)	• (Bellows-type pump)
1 connection for external DOS G10 or DOS G60 dispenser module	•	–
DOS S20 dispenser pump for neutralising agent and surfactant	–	Optional
DOS NA 120 dispenser pump for disinfectant or liquid detergent	Optional	
Ultrasound flow control	–	•
Drawer for 2 x 5 l supply canisters	•	–
Drawer for 4 x 5 l supply canisters	–	•
Water softeners		
for cold and hot water to max 70°C, Monobloc softener	•	–
for cold and hot water, max 70°C, large-capacity water softener		
	–	•
Steam condenser		
Aerosol	•	•
Drying unit		
Fan [kW]	0.3	0.3
Heater bank [kW]	2.3	2.3
Total rated load [kW]	2.6	2.6
Air throughput [m^3/h]	60	60
Temperature selection in 1°C increments [°C]	60–115°C	60–115°C
Time selection in 1-minute increments [mins.]	1–240 mins.	1–240 mins.
Pre-filter EU 4, filter rating > 95%, filter life 100 h	•	•
Particulate filter/HEPA S-class filter H 13,		
Filtration rate >99.992% (DIN EN 1822), life cycle 500 h	•	•
Dimensions/Weight		
External dimensions H/W/D [mm]	820/900/700	1175/900/700
Cabinet dimensions H/W/D [mm]:	500/535/ O*=473, U*=516	500/535/ O*=473, U*=516
Weight [kg]	114	177
Casing		
Stainless steel (AE)	Stainless steel	Stainless steel
Compliance with standards		
DIN EN ISO 15883-1/2, EN 61010-2-40, EN 61326	•	•
Test certificates		
VDE, VDE-EMC, MDD CE 0366, IP 20	•	•

*O = Upper basket, U = Lower basket, • = standard

PG 8536



Safety
through process reproducibility

The reproducible documentation of reprocessing guarantees gap-free records and allows the evaluation of reprocessing. This represents a significant increase in quality care for patients and for healthcare workers as well. The careful documentation of reprocessing gives the peace of mind that comes from legal security.

Miele Professional now for the first time is offering its own complete process documentation package as part of System4Med. The heart and soul of the system is the Segosoft Miele Edition documentation software. Depending on the requirements of surgeries and on-premise conditions, various documentation solutions are available. Miele machines and their software are an ideal match and interact perfectly.

The user-friendly Segosoft Miele Edition allows full traceability and secure documentation of processes on washer-disinfectors, small steam sterilisers and heat-seal units. Traceability is guaranteed by recording process protocols and plotting temperatures and pressures - information provided by the machine itself via an interface. Alongside capturing this process data, it is also possible to perform daily routine tests or even accompany each cycle with a test. This represents a huge and convincing benefit compared with manual documentation using forms and templates.

The system also documents maintenance intervals. Filter changes, for example, can be documented along with further replacement intervals. Consequently, documentation represents a huge contribution towards quality management in surgeries and hospitals.

Digital documentation
National legislation requires that documents are filed for up to 30 years. Hence, paperless documentation dispenses with considerable shelf space for files. Electronic filing has become an even more interesting proposition since the introduction of enhanced digital signatures, allowing documents to be legally signed. This digital signature reveals any subsequent changes to documents and reliably prevents manipulation.

SegoSoft Miele Edition:
Documents are created by the Segosoft Miele Edition in PDF/A-1 format in compliance with the ISO 19005-1:2005 standard. This format was specially designed for long-term archiving and ensures excellent legibility over time. Digital signatures are created electronically using a user name and password and do not require any signature hardware. Compared with flash card storage systems processed using standard Office programmes, Segosoft Miele Edition sets standards in terms of the prevention of manipulation and legal validity.

Documentation made simple
Segosoft Miele Edition excels in terms of speed, simplicity and efficiency gains. Once a Miele washer-disinfector or small steam steriliser commences operation, the software automatically logs all relevant data during the reprocessing cycle. After unloading and visual inspection, the user can accept reprocessing results at a computer and approve charges using a user ID and password with no more than 2 mouse clicks. In all, the approvals process takes less than 10 seconds.

Legal security
In the event that legal action is taken over medical treatment, a reversal of the burden of proof applies: The surgeon or hospital must furnish proof that instruments were hygienically reprocessed by keeping records for up to 30 years. This proof can best be provided on the basis of gap-free and reproducible documentation of all hygiene measures to refute allegations in a court of law. Miele software also offers legal security and meets the provisions of the Robert Koch Institute guidelines and medical ordinances.

Segosoft®
Miele Edition

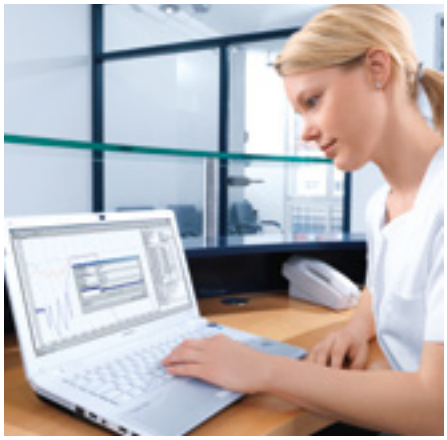
Process documentation options

Documentation of instrument reprocessing can be performed in a variety of ways, depending on surgeries' needs and on-site conditions.

1. Electronic documentation: Direct connection between PC and machine

Miele washer-disinfectors or small steam sterilisers are connected direct by cable (up to 13 m long) to a computer on which documentation software is installed. This computer can be a netbook, laptop or PC in the same room or an existing computer, for instance, in a neighbouring office.
The serial connection on the machine can be converted to USB using an adapter.

- Short distances and simple handling by approving loads on-site.
- Most flexible approach to connecting two or more units in hygiene room.
- Automatic data transfer from machine to software.
- Digital archiving



2. Electronic documentation: Network connection

Washer-disinfectors or small steam sterilisers are connected to a surgery network computer hosting documentation software, e.g. central computer at reception desk. Network integration of machines with their serial interfaces is via a network converter.

- Use of existing computer
- Automatic data transfer from machine to software
- Digital archiving

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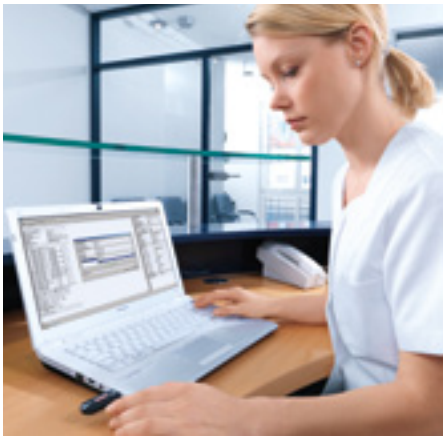
Miele Edition



3. Electronic documentation using USB stick
Process data from washer-disinfectors or small steam sterilisers can be saved to a USB stick for subsequent transfer to documentation software.

- Low level of investments in computer and network infrastructure
- Use of existing computer
- Digital archiving

4. Process documentation via printer
Process data is printed using a receipt printer in the hygiene room. The printouts are filed.

Comparison of documentation options

	Direct PC connection	Network connection	Documentation via USB	Printer
Documentation: Process protocol	•	•	•	•
Documentation: Temperature/pressure charts	•	•	•	–
Documentation: Routine checks	•	•	–	–
Documentation: Maintenance	•	•	–	–
Simple digital signature	–	–	•	–
Advanced digital signature with reference to user	•	•	Optional	–
Manual approval with signature	–	–	•	•
Digital approval with user name/password	•	•	Optional	–
Convenience of short distances	+++	++	++	+++
Paperless filing	•	•	•	–
Data backup function	•	•	–	–
Production of sterile supply labels	Optional	Optional	–	–
Legal security	•	•	•	•
Initial outlay	+++	++++	++	+

• = available – = not available + = evaluation scale

SegoSoft Miele Edition – Products and accessories

SegoSoft Miele Edition:
Process documentation software for direct PC connections or network connections

'Comfort Plus' package
with extended functionalities
- Documentation of process data, routine checks, maintenance
- Advanced digital signature with reference to user in PDF document
- User-referenced approval of process protocols with user name and password
- User administration for any number of user names/passwords
- Backup function for automatic data backup

Scope:
- Software CD, Comfort Plus software package, installation instructions
- Licence card for 1 machine
- Optional: Additional licence for further units
- Free support
  Free over-the-telephone installation support for 30 days, software installation and start-up instructions

Connectable model types:
- Serial connection: max. 4 machines

Network connection: Any number of machines

Connection cables
to be ordered separately

Segosoft Miele Edition/USB solution
Process documentation software for data transfer using USB stick

'Comfort' software package
with basic functionalities:
- Documentation of process data
- Simple digital signature
- User-referenced approval on enclosed signature pad
- Optional: Software upgrade to Comfort Plus, e.g. for digital approvals with user name and password, further functions, cf. Comfort Plus software package

Scope:
Complete package for 1 machine
- Software CD, Comfort software package, installation instructions
- USB stick
- USB data logger
  H x L x W: 31 x 90 x 109 mm,
  incl. 230 V converter, 1.4 m supply lead
- Serial interface cable
  to connect machine and data logger
  (cable length: 3 m)

Connectable model types:
- max. 1 machine
- Optional: Connection of up to 5 machines possible using software upgrade to Comfort Plus

Net500 network converter
Net500 network converter for connection of machines with serial interface to surgery network, data conversion from RS 232 to network format (TCP/IP)

Scope:
- Network converter
  H x L x W: 31 x 90 x 109 mm
  incl. 230 V converter, 1.4 m supply lead

PRT100 protocol printer
Printer to print process protocols, ink-jet printer with indelible ink

Further additional components
To connect a machine to a PC, Miele offers a range of approved cables. Miele can also advise on the choice of suitable software and hardware.

Segosoft®
Miele Edition

Fast labelling with SegoLabel Miele Edition

Software for sterile supply labelling
With Segolabel Miele Edition software, labels can be printed fast and sterile supplies stored with an expiry date. The labels are created after sterilisation using a special printer and contain the cycle no, date of creation, expiry date and the name of the person responsible.
It is also possible to include information on pouch contents. Labelling using a barcode allows the fast assignment of process data to patients' records, providing uninterrupted traceability from reprocessing to use on patients.

SegoLabel Miele Edition: Starter kit
Complete package consisting of hard- and software to create sterile supply labels. Miele recommends the use of SegoLabel in combination with SegoSoft Miele Edition.

Scope:
- Software CD, installation instructions
- PRT 200 label printer incl. converter (cable length: 3.8 m) and USB cable (length 2 m)
- 1 roll of labels, 1,000 off, and colour ribbon (both also available from Miele as accessories)

Miele Sales and Service – A full range of benefits

Miele washer-disinfectors and small steam sterilisers set standards in instrument reprocessing in surgeries and outpatient units. Miele Sales and Service with its blanket geographical coverage and fast on-site repairs guarantee comprehensive peace-of-mind support, perfectly complementing System4Med.

Sound advice from the very beginning
Miele's advisory service sets in long before machines are installed. Miele specialists provide expert support in helping select the most appropriate machines and assist in performing extensive feasibility studies. Where needed, Miele also offers financing models.
- Advice on machine selection
- Economic feasibility calculations
- Attractive financing

Comprehensive service package from one single source
Even as early as when a new machine is delivered, Miele supports clients by providing a comprehensive range of services. From the word 'go', work is performed on site with due care and diligence and in full compliance with relevant legislation by carefully trained Miele service engineers.

Your benefits:
- High-quality service with short response times and blanket service coverage for Miele medical products is provided by specialised service engineers (e.g. over 150 technicians in Germany alone)
- Short call-out distances and on-site repairs are generally guaranteed within 24 hours.
- Expert application technology advice
- 90% of service calls result in first-time fixes
- Reliable spares service (even as long as 15 years after the discontinuation of series production in the case of key functional spares)

Customised service contracts
Miele's inspection and maintenance contracts ensure that Miele machines are inspected at regular intervals by specially trained Miele after-sales service engineers. The proper functioning and safety of all key components is analysed. Machine uptime and smooth operation is ensured by replacing spare parts at an early juncture. This considerably minimises any downtime risk.

Inspections and preventative maintenance help ensure that machines retain their value and represent a good long-term investment.

Miele offers the following service contracts:

Inspection contract
An inspection contract covers the following:
- Annual inspection incl. comparison of readings
- Detailed assessment and documentation of technical state of repair
- Maintenance check
- Electrical safety check
- Thermoelectric test

Maintenance contract
In addition to the services provided by the inspection contract, a maintenance contract offers the following benefits:
- Extensive maintenance based on specific Miele service plan for the model concerned
- Offers submitted for further preventative maintenance and repair work
- Pre-emptive replacement of defined high-mortality parts
- Necessary safety checks

Should further repair work be necessary, this is invoiced separately.
Rechnung gestellt.

Full-service maintenance contract
Miele's full-maintenance contract offers good financial forward visibility. In addition to the services provided under the maintenance contract, it also covers the costs of any necessary repairs. The cost of spares, parts subject to wear and tear, call-out charges and labour costs are assumed by Miele

Validated performance
Miele also offers a series of process checks performed by highly qualified Miele medical product engineers in accordance with the relevant legislation and standards as well as national guidelines and good-practice recommendations:
- Initial validation consists of installation, operation and performance qualification after machine installation
- Revalidation (repeat performance qualification) is generally necessary every 12 months, after maintenance, repairs or after any modifications to installation or operation parameters.
- Performance qualification for washer-disinfectors, taking into consideration the fact that mainly semi-critical instruments are reprocessed in surgeries and outpatient units.

Professional organisations and inspection authorities are able to provide information on which type of check is sufficient.

It is not without reason that Miele's after-sales service operation has been acclaimed for many years in succession for its service excellence (in an annual survey performed by ServiceBarometer AG, Munich).

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